



Anno 1778.

PHILLIPS ACADEMY



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# Andover



# Catalog 1978-79





# Andover



# Catalog 5-314 1978-79

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## CALENDAR 1978-79

### Fall Term

September 16, Sat.	New Students arrive
September 18, Mon.	Old Students return
September 21, Thurs.	Classes begin
November 22, Wed.	Thanksgiving Break begins, 12:50 p.m.
November 26, Sun.	Thanksgiving Break ends, 6 p.m.
December 5, Tues.	Fall Term examinations begin
December 8, Fri.	Examinations end — vacation begins, 12 noon

### Winter Term

January 3, Wed.	Students return by 8 p.m.
January 4, Thurs.	Classes begin
March 7, Wed.	Winter Term examinations begin
March 10, Sat.	Examinations end — vacation begins, 12 noon

### Spring Term

March 26, Mon.	Students return by 8 p.m.
March 27, Tues.	Classes begin
June 1, Fri.	Spring Term examinations begin
June 6, Wed.	Examinations end, 12 noon
June 7, Thurs.	Commencement

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1978-1982



Phillips Academy,  
Andover, Massachusetts,  
better known as Andover,  
is an independent, coedu-  
cational, integrated and  
non-sectarian institution  
offering a variety of aca-  
demic programs for high  
school students.

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PHILLIPS ACADEMY IN 1778.

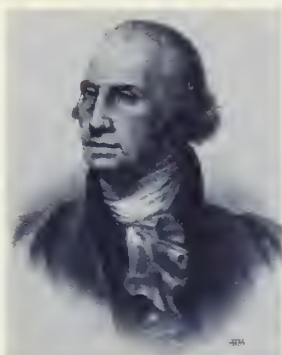


## Introduction to Andover

In an old carpenter's shop, "fitted up temporarily for school purposes," thirteen pupils gathered to meet Master Eliphalet Pearson and hear a dedicatory sermon by the Reverend Jonathan French. The date was April 30, 1778, and the Phillips School of Andover was begun. There was little reason to believe the future held bright promise that Thursday morning two hundred years ago, for both our school and the young nation of which it was a part existed more in the hopes of their founders than in reality. Indeed there was a certain audacity in venturing any new enterprise at a time when the war with England was going badly and there was, as yet, no stable government for the new American nation. But twenty-six-year-old Samuel Phillips, Jr. had set about convincing others that the times required just such a venture as the Phillips School. He wrote, "upon the sound education of children depends the comfort or grief of parents, the welfare or disorder of the community, the glory or ruin of the state. The present public ignorance gives rise to a fear of events the most dreadful. . . ."

Our modern Phillips Academy bears little physical resemblance to its origins, but it is striking how strong the threads of continuity are with the ideals and even the government set forth by the founders. The emphasis on intellectual and moral training and the determination to draw able young people from every quarter of society are ideas as appropriate today as they were in the Revolutionary age in which they were conceived.

Andover, for all of its two hundred years, has been and remains a place for young people to learn "*the great end and real business of living*," a goal set forth in the *Constitution* that has served us, unchanged save for emphasis appropriate to the changing times, for two centuries. We serve today over eighteen hundred young people, most between fifteen and eighteen years of age, at the Academy among the course of a calendar year. Some eleven



President George Washington wrote in 1795:

"There are too (sic) private Academies in the state of Massachusetts which are highly spoken of . . . That at Andover I have been at myself; it is in a high, dry & pleasant Country; & is more of a town-ship than a town—Inhabited by respectable & well disposed people. —Schooling, board, washing & lodging will not much, if any, I am told, exceed two dollars a week for each boy." Excerpt from President Washington's letter to his nephew, Colonel William Augustine Washington, who subsequently enrolled his sons.

hundred students are at Andover during the traditional school term for periods up to four years. Over seven hundred spend the summer with us. While the students in our day are drawn from a narrower age group than earlier — Eliphalet Pearson faced both a six-year-old and a thirty-year-old in his first class in April of 1778 — their hopes and worries, many of the decisions they face, even their pranks, are timeless.

It should be a privilege to attend Andover, but Andover should not be a school of privilege. We are committed to enrolling able students from all economic levels, from every racial, religious and ethnic entity, "from every quarter" of American life, and from foreign lands. Our *Constitution* bids us do this. Andover is no single group's sanctuary. In a day when many Americans, by their actions, are rejecting even the ideology of the melting pot, we assert it.

Andover is a residential school, a twenty-four-hour learning community. This allows us to draw young people from across neighborhood lines, across state and national boundaries. Young people learn from peers as much as from teachers, particularly in a setting where there is no abrupt clash between classroom and street, between school and home. Class, racial, religious and geographic diversity enrich a school and undermine the divisions that rend national and international life. We presume to forward the learning of leaders here, and leaders in our day must know first-hand how trivial are racial, social, national and religious differences, and how significant is the unity in humanity.

Andover is well-equipped to provide for students whose interests and abilities are primarily in the academic realm, in the traditional liberal curriculum. While the so-called "liberal arts" in American schools and colleges have often drifted into pedantry and dullness, we yet believe that the core of this tradition is sound. When demandingly taught, this liberal arts core provides the basis for public and moral leadership. Keen rationality, nourished by examined tradition, is the root of individual decency and freedom.

In a school the principal means to achieve these ends are decent, free and talented teachers. Andover's teachers are strong personalities, individuals of energy and well-considered values, instructors whose work is in the classroom, and also on the playing field, in the dormitory, in the dining hall — in short, across the full range of places where both adult and young person meet. American education is moving away from such a model of teacher. In the mistaken belief that "efficiency" will result, teaching is broken into mechanistic bits. Andover makes a stand

for the other, older tradition, for whole teachers who are concerned about whole pupils, their struggles and joys, their bodies and souls as well as their brains.

Our American culture, alas, is not one which takes youth seriously. True, we "use" adolescents as a market and sell much to them. We make fetishes of their tastes. We curse them and try to curb them when they disturb adult lives. But generally Americans feel that the teenaged years are something to get over, certainly not something in which to invest, to respect or to trust. The founders of this school knew better, and we reassert that knowledge. We do take youth, and adolescent education, seriously. Youth is important, a crucial time of life. For those whom Andover serves, now and in the future, we want it to be a rich, constructive and joyful experience.

THEODORE R. SIZER  
*Headmaster*







## Andover Life

### A Beginning



In 1782 Paul Revere was commissioned to make the Phillips Academy seal. Revere engraved the educational faith of Andover's founders—"The end depends upon the beginning"—around the symbols of the rising sun and the hive of industrious bees. The founders' religious and patriotic commitment to the common good is symbolized by the second motto, "Non sibi," "not for one's self."

### The Place

Phillips Academy opened for instruction shortly before the Continental Army marched out of Valley Forge and, in one sense, the school and the nation have grown up together. Paul Revere engraved Andover's seal; John Hancock signed its Act of Incorporation, and George Washington sent his nephews here to study. Samuel F. B. Morse and Oliver Wendell Holmes were students of Principal John Adams. Harriet Beecher Stowe lived and worked at Andover; she is buried in the Academy cemetery, and her home is now a dormitory. "America" was written on Andover Hill in 1832. For two centuries we have sought to develop sound scholarship, character and self-reliance in our students, as well as a commitment to work for the good of the nation and mankind.

If you come to Andover today, you won't have to go far to see a building designed by Charles Bulfinch or one named for Nathan Hale. You will take classes in a modern arts and communications center, an archaeology museum and in buildings dating back to the War of 1812. You might live in a dormitory constructed in 1808 or one built in 1973. Your next door neighbor might be from Texas or Thailand. You might take Greek and kinetics, or Russian and astronomy. You might learn how to play squash, discover what it's like to work for a radio station or how to run rapids in a kayak or canoe.

The opportunities are here.

Phillips Academy was the first boarding school to be incorporated in the United States (1780). For 194 years, until 1972, it was an all-male institution; in October of that year the Trustees of the school announced the merger of Abbot Academy and Phillips Academy to effect a single coeducational school. Abbot Academy, established in 1829, was one of the oldest girls' boarding schools in the nation. Several years of coordinated academic courses and





extracurricular activities between the two neighboring schools preceded the merger. During its two centuries the school has grown in size from a single rude building and a few acres of land to an extended campus of 160 buildings on over 450 acres.

The school is located on a hilltop in the town of Andover, a 45-minute bus ride from Boston and Cambridge. It is well situated for easy access not only to the historical, cultural and entertainment offerings of the Greater Boston area, but to the beaches and mountains for which northern New England is justly renowned.

## The People

### *Students*

There are 1073 students (670 boys and 403 girls) in Andover's regular session. A further 708 attend the Academy Summer Session, and some 94 attend Short Term Institutes held on campus at various times during the school year (see page 42).

Andover students come from every walk of life, from every state in the union and from more than 30 foreign countries. They are divided into four classes: Seniors, Uppers, Loweres and Juniors — our traditional terms for 12th, 11th, 10th and 9th graders. Although some are here for four years and others for programs taking a much shorter time, they all have two things in common: intelligence and the willingness to use it.



### *Faculty*

The faculty number 189, 17 with Ph.D.'s and 100 with M.A.'s. The power of an Andover education flows directly from their scholarship and classroom teaching.

Andover asks much of the men and women who teach here: although the heart of the work is in the classroom, the tradition of schoolmastering calls for the teacher to serve simultaneously as house counselor or student advisor, coach and part-time administrator. Andover teachers are accessible to students in the dormitory, in athletic endeavors, in extracurricular activities; they share an abiding interest in the growth of young people and a willingness to become directly involved in that process.

### **A year, a week, a day**

Andover operates on a trimester system, offering 290 separate courses that vary in length from one trimester to the full year. The year begins in late September and ends in mid-June, with breaks at Thanksgiving, Christmas and in the early spring.

Classes are held on Monday, Tuesday, Wednesday morning, Thursday, Friday and every other Saturday morning. Classes are normally 50 minutes long, providing five instructional periods in the morning and, with the exception of Wednesday and Saturday, two in the afternoon. An individual is likely to have one morning period and one afternoon period free each day, depending on the scheduling of courses and laboratories.

Participation in athletics is required of all students, and athletics and activities are scheduled four afternoons a week for two hours each. On Wednesday and Saturday afternoons, varsity and junior varsity teams often participate in interscholastic competition.

Meals are served in Commons, the central dining hall, composed of four dining halls and two serving areas. The cost of meals is included in the tuition of both boarding and day students.

Wednesdays and Saturdays are half holidays with no afternoon appointments. On alternate Saturdays there are no morning





classes. Sunday is totally free. On these days there is time for independent study, for special projects, for informal sports, shopping in Andover or trips to Boston, the beach or the mountains. Social events during the week are limited by the demands of the academic program, but the weekends on campus abound with dances, concerts, movies, plays and informal activities.

Most students are eligible to take a day excuse each week, and after the first two weeks of the year, they are eligible to take overnight excuses beginning after their last scheduled weekly appointment.

Course work is intensive and involves about twenty-five hours of outside preparation each week. In addition, all students are required to attend athletics or afternoon activities for approximately six hours each week. Uppers and Loweres also spend three hours in the school work program per week. Despite the amount of time that must be spent on academic pursuits, most students become very involved in extracurricular activities and social events. The school encourages independence and personal responsibility: there are no study halls, and decisions about the use of one's time are largely left to the judgment of the individual.



## Residential Life



Dancing was forbidden in the 1820's, "and when a rash Frenchman proposed to start a dancing academy in the town, the Principal (John Adams) did his best to have him summarily ejected by the village fathers." Claude M. Fuess, *An Old New England School*

### *Dorms and Clusters*

Boarding students live in dormitories with faculty house counselors and their families. Although these buildings vary in size from four to twenty-two students, all are small enough to encourage close relationships among students and between students and house counselor. One third of the students live in single rooms; two-thirds have roommates. Rooming arrangements vary from large one-room doubles to three-room suites; larger dorms are likely to have students from at least three classes.

For many students, dormitory life is one of the most valuable aspects of their time at Andover. Whether it's planning a pancake breakfast or studying for a history mid-term, sharing it with people from very different backgrounds or from foreign lands is a rewarding learning experience.

Dormitories are grouped into six geographical units called "clusters," each including girls' and boys' dorms, about 175 students from all classes, and 15 to 20 faculty families. Clusters create the personal atmosphere of a small community in which everyone knows everyone else and people do most or many things together. The Cluster System is the heart of Andover's residential life, bringing the advantages of a small school to an institution that already has the advantages of size.

The clusters have considerable independence; teachers and students together manage their own affairs under the leadership of a Cluster Dean. Each cluster has its own student officers, discipline system, intramural athletics and informal social activities.

Clusters are responsible for administering much of the student work program, which is designed to develop a sense of community responsibility for the daily operation of the school. It also assists the school in reducing its expenses. Lower, working no more than three periods a week, share the jobs of returning books to library stacks; operating audio-visual equipment; serving as office helpers, messengers, laboratory assistants; and performing other essential tasks. Upper boarding students are responsible for the daily care of dormitories, while all students in any given dormitory are responsible for keeping its entries free of litter and snow. Upper day students serve two periods a week in work crews raking leaves, sweeping stairways in classroom buildings and doing similar tasks.

The clusters take turns each week working in the dining hall, Seniors serving as overseers. Seniors have other supervisory roles; they proctor in dormitories and, as members of Blue Key, organize the welcoming and orientation of new students in the fall.





"On Monday the scholars recite what they can remember of the sermons heard on the Lord's Day previous; on Saturday the bills are presented and the punishments administered."

*Principal Eliphalet Pearson's description of the Phillips Academy schedule in 1780.*

### *Counseling and Discipline*

Those who are not accustomed to a residential school may at first be surprised by the degree of independence an Andover student has; on the other hand, they may be surprised by the existence of rules and procedures necessary to protect the rights of individuals and to enable the school to achieve its ends. Existing rules have a dual purpose: to preserve the necessary order in the community so that effective learning can take place, and to teach students that individual freedom can be achieved only through due consideration for others. The school tries to keep rules to a minimum. Incoming students and their parents are provided with a copy of the *Academy Blue Book*, summarizing rules and regulations; all students are held responsible for its contents.

Each student has a faculty house counselor who lives with his or her family in the dormitory and who is available for advice and assistance. This faculty member works closely with students in the dormitory on both the personal and academic level, and parents can expect to hear from the house counselor at regular



intervals. Parents are encouraged to turn to the house counselor for information regarding a student's progress.

Each Cluster Dean supplements the work of the house counselor and is available to students and parents for information and advice. Other support staff include academic advisors, who help students in the cluster plan their academic programs, and Co-Directors of College Counseling, who assist all Seniors with their future educational plans. The Psychology Department, located in Graham House, offers individual counseling for any student and leadership training for students who wish to develop those skills.

Discipline is handled at the cluster level and involves the Cluster Dean, house counselor, other faculty and student representatives. Offenses involving a student's integrity, social offenses that threaten the well-being of other individuals or the school community, and continued infractions that indicate an unwillingness to come to terms with the demands of the school all render a student liable to dismissal. Examples are dishonesty, the possession or use of alcoholic beverages or illegal drugs and unauthorized absence from school bounds. Students may not possess, rent or drive any motor vehicle within school bounds; bicycles are permitted. Andover does not allow smoking, unless students have completed a school-administered course on the health hazards involved and have parental permission.

In a community such as Andover, all must commit themselves to the goals of the community and to loyalty to each other. Since education at Phillips Academy is both intellectual and humane, students and faculty derive mutual support from sharing of themselves and their ideals.

Trust and responsibility have many interpretations; these words have become hackneyed from overuse and misunderstanding. But the ideas they embody — sensitivity to others, willingness to explore and respect differing points of view, charity and humility in expressing judgment, readiness to cherish friendship, to depend and to be depended upon — are nonetheless fundamental. Such values can scarcely be legislated and can only be imperfectly defined. Yet the health and happiness of everyone in the community depend on consideration and awareness, restraint and candor, discretion and shared joy. Collaboration toward these imprecise but worthwhile ends is an expectation which all at the Academy hold.

Only boys and girls who feel that they can live happily with the rules and guidelines of Phillips Academy should apply for admission.

[illegible]

In 1789, the first scholarship monies are recorded, from John Phillips, "in consideration of further promoting the virtuous and pious education of Youth, (poor children of genius and of serious disposition especially) in Phillips Academy, founded in Andover, Massachusetts."





Harriet Beecher Stowe, author of *Uncle Tom's Cabin*, and her husband, a Seminary professor, lived in Stowe House. She is buried in the school cemetery. Mrs. Stowe shocked the strict Congregationalist community by giving parties and entertainments for students, was suspected of going to the theater and even of having "Episcopalian leanings." Claude M. Fuess, *An Old New England School*

### *The Campus Ministry*

Phillips Academy is newly committed to a "team" ministry, representing the Protestant, Roman Catholic and Jewish faiths, that seeks to be responsive to the spiritual needs of the school. The school chaplains are ordained faculty members who generally teach courses other than courses in religion, but have the additional responsibilities of worship services and of pastoral counseling. Andover students come from various religious traditions; some have no religious affiliation. The school wishes actively to support several religious communities within the institution and hopes that a less formal but more focused approach to the spiritual life of the school will encourage other teachers and students to active participation and leadership.

Worship services are available for all who wish to participate. A Protestant interdenominational service, a Roman Catholic Mass and a Quaker Meeting are held on Sundays; the Jewish congregation has services regularly on Friday evenings.

### *Activities*

Extracurricular activities are an important aspect of a student's education, and Andover offers a rich fare, thanks to the diversity of interests in the student body. From the Pre-Med Club member to the Model Railroader, it seems that all Andover students do something special in their free time.

Many of the activities are service-oriented; the Community Service Program places student volunteers in area hospitals, elementary schools, youth centers and other agencies. Closer to home, the Student-Alumni Association handles the responsibility of conducting campus tours for the Admissions Office. Older students who are members of the Tutorial Program offer help to fellow students in academic difficulty. The student radio station, WPAA (91.7 on your FM dial), is on the air from 6:30 a.m. to 11:30 p.m. daily, serving the local listening area as well as the student body. The *Phillipian*, the Academy's student-run weekly newspaper, is wholly uncensored; students lay out the paper and do the typesetting, as well as write the articles and headlines. The *Pot Pourri*, the school yearbook, and the school literary magazine, *The Mirror* (Robert Frost was an early contributor), provide more opportunities for those with a literary bent.

Cultural organizations include the Afro-Latino-American Society, the Foreign Students Union and others; course-related groups range from the Astronomy Club to the Russian Club. The Chapel Council, the Newman Club and the Jewish Student Union support the "team" ministry in providing active religious communities for Andover students.





At any time during the week, actors and directors will be working on a main stage play or on a student production in the Drama Lab; the Andover Student Political Union may be listening to a State Department official discuss the Middle East; the Natural History Club may be birdwatching on an ocean beach; or — if the season is right — the Ski Club may be on its way to the White Mountains of New Hampshire.

Many students make extensive use of school facilities in their free time, whether or not they are affiliated with a club or organization. The Arts Center is a major focus of school life — darkrooms are used almost around the clock, and students and faculty interested in bottle cutting, metal sculpture, ceramics or designing rabbit hutches make use of the center's studios and workshops in their free time. The Music Department also provides facilities for students interested in pursuing music beyond the classroom.

There is no limit to the variety of extracurricular activities at Andover. Students who do not find an existing club or organization that meets their needs are encouraged to start one.

## Undergraduate Organizations (Clubs)

Afro-Latino-American Society  
Amateur Radio Club  
Andover Foreign Students Union  
Andover Student Political Union  
Anglers' Club  
Astronomy Club  
Band  
Blue Key  
Brass Choir  
Bureau of Tutoring  
*Caucus* (Af-Lat-Am publication)  
Chamber Music Society  
Chapel Council  
Cheerleaders  
Chess Club  
Chorus  
Coin Club  
Day Student Union  
Drama Workshop  
Duplicate Bridge Club  
Eagle Scout Club Post 107

*Eidolons* (student photography publication)  
Fidelio (madrigal singing society)  
Forum for Congressional Review  
French Club  
German Club  
Jewish Student Union  
Magicians' Club  
Mechanics Club  
Meteorology Society  
*The Mirror* (literary magazine)  
Model Airplane Club  
Model Railroad Club  
Natural History Club  
Newman Club  
Orchestra  
Outing Club  
*The Phillippian* (weekly student newspaper)  
Philomathean Society (debating society)  
*The Pot Pourri* (yearbook)

Pre-Law Society  
Pre-Medical Society  
Press Club  
Radio Broadcast Association (WPAA-FM)  
Russian Club  
Sailing Club  
Ski Club  
Social Functions Committee  
Spanish Club  
Stage Crew  
Stamp Club  
Student Alumni/ae Association  
Student Bicentennial Committee  
Student Pilots Association  
SUMOP (Summer Job Opportunities)  
SWAG (Solid Waste Action Group)  
Table Tennis Association



## Educational Resources

### The Holmes Library

At the center of Andover's intellectual life is the 101,000-volume Oliver Wendell Holmes Library, named after the famous doctor and poet who was a member of the Class of 1825. The stacks are open to students. In addition to academic work, students and teachers use the library to explore new fields of interest and to read casually.

The library subscribes to over 250 American and foreign periodicals and 11 daily papers from cities throughout the country. A microfilm file of *The New York Times* is available. Particular library treasures are an original elephant folio of *Audubon's Birds of America*, papers and books of Oliver Wendell Holmes, and one of the world's leading collections of Vergiliana. The science and mathematics departments have working libraries in their own buildings.

## The Addison Gallery



"Wandering"  
by Peter Abate

The Addison Gallery of American Art operates both as a museum in the traditional sense and as an art center for the whole community. In addition to organizing exhibits of American art from its own collection, the museum originates exhibits of contemporary painting, sculpture, photography and crafts. A student-produced seminar series brings artists into close range contact with students concerned with issues of use and survival in the arena of contemporary art. In cooperation with Phillips Academy's Music Department, concerts by faculty and students are produced in the museum.

The holdings of the museum are recognized as a distinguished specialized collection: Allston, Copley, Morse, Stuart, West and others represent the Colonial period. Of special importance among the many paintings of the nineteenth century are examples by Cole, Doughty, Eakins, Homer, Inness, LeFarge, Ryder, Twachtman and Whistler. The early part of the present century is shown in the work of Bellows, Davies, Demuth, Hassam, Hopper, Luks, Marin, Prendergast and Sloan. Contemporary artists are represented by works of Calder, Lippold, Moholy-Nagy, Hofmann, O'Keeffe, Pollack, Shahn, Wyeth and others.

## The Robert S. Peabody Archaeology Museum

The Robert S. Peabody Foundation for Archaeology has conducted major archaeological research in this hemisphere for the last 75 years and has published many reports of its scientific investigations. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas. The laboratories of the museum assist in teaching and illustrating the Foundation's research. Mature students may undertake special study projects which involve the use of the Foundation's collections and library resources.

Current research is concerned with the origins of agriculture and with the concomitant rise of civilization in the New World. The Foundation maintains continuing research programs in Mexico and Peru and supports major publications based on the analysis of this research. The Peabody Foundation is under the direction of Dr. Richard S. MacNeish, a member of the National Academy of Sciences of the United States; the curator is Dr. Jane Wheeler Pires-Ferreira.



## **The Cochran Sanctuary**

The Moncrieff Cochran Sanctuary is a sixty-five-acre tract of rare beauty located so close to the center of school activity that it is in fact an extension of the campus. Landscaped areas planted with dogwood, azalea, rhododendron and laurel provide a succession of bloom that draws many visitors from late April to mid-June. A brook and two ponds attract nesting ducks and geese, and extensive natural wild areas, varied in terrain and plant life, provide nesting places for many species of land birds. Cross-country runners and skiers make extensive use of the Sanctuary, as does the Academy's Search and Rescue program.





## The Academic Departments

### The Curriculum

The curriculum of Phillips Academy contains both a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Instruction is given in all subjects required for entrance to higher institutions, whether liberal arts or technical. All departments offer courses beyond the level of preparation for college.

Classroom groups are small enough to permit individual attention; the average class size is fourteen. Students are placed in sections fitted to their attainment and, through accelerated sequences and advanced courses, are encouraged to progress at a rate commensurate with their ability and ambition. Many students fulfill requirements ahead of the normal year, increasing their choice of college-level courses and other elective opportunities. Andover's trimester system provides flexibility and variety in the curriculum and allows various combinations of independent work and off-campus projects.

Every student is assigned to an academic advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements and the student's particular interests. With the approval of the academic advisors and house counselors, students may select their instructors, class times and sections during the Arena Day preceding each trimester. However, the school cannot guarantee that all students will be able to have their desired selections.

The curriculum is described in detail in the *Course of Study*, which will be sent to each preliminary applicant and to others who request it.

## THE ARTS



When Humphrey Bogart flunked out of Andover in 1918, it was not from lack of ability, his teachers agreed. Headmaster Alfred Stearns wrote to Humphrey's father, a classmate of Stearns: "The boy is all right at heart and is bound to come out on top."

### Visual Arts

At the heart of the art program is a concern that all students learn to see freshly and accurately, that they learn how to organize their efforts to make something happen, that they develop a critical eye for the coherence of their environment, all these with an independent mind.

The diploma requirement in art is as follows: entering Juniors and Lowers must take a trimester course in studio art; an entering Upper must take a trimester course in studio art or music. Andover attempts to balance structured, problem-solving courses like the basic Visual Studies, with more adventurous advanced courses, organized around longer-term projects. For a student who desires several terms in art or design, the courses are here, whether the student's objective is a professional school, Advanced Placement in a liberal arts college, or simply a strong basis in a traditional area of general education.

The superb facilities of the Arts and Communications Center — fully equipped wood and metal shops, two complete photo labs, print-making equipment, painting and drawing studios, a kinetics studio — are supplemented by the several kilns available to ceramicists. At any given moment over one-third of Andover's student body is involved in photography courses. The department welcomes extracurricular use as well as work related to courses, and faculty members are on hand every evening to encourage the idea that whether it's painting or bicycle repair, the Arts Center is the place to go.

### Theatre

Courses in theatre are designed for students who seek formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work on plays. A variety of experiences is available: some courses are performance oriented; some are theory oriented; some are both. All combine classroom and workshop sessions; students work out practical theatrical problems together under the guidance of an instructor. Courses in directing, acting, production, stage lighting and design are all popular.

George Washington Hall includes a flexible, professionally equipped proscenium stage, capable of handling audiences of one thousand. It has a full fly system, accommodation for numerous lighting instru-





ments and an elevator/pit. In the past, main stage productions included *Scapino*, *The Me Nobody Knows*, *A Thurber Carnival*, *Cabaret*, *The Time of Your Life*, and *Vatzlav*.

The Drama Lab, also in George Washington Hall, is a "black box" — an intricate arena/workshop with excellent lighting facilities, suitable for audiences of not more than 100. Although main stage plays are usually directed by a member of the faculty, the Drama Lab allows students to direct plays themselves and to experiment with dramatic styles. A sample of productions from the last year includes *Trial by Jury*, *The Point*, *The Prime of Miss Jean Brodie*, and plays by Albee, Ionesco, and Pinter. Original student work is also performed here.

Theatre students are encouraged — but not required — to supplement their classwork by participating in any of the numerous productions mounted each year; anyone may audition for the Andover Touring Company, for five years part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life* and *Godspell* during spring vacation.

## Music

The Music Department faculty consists of five full-time and several part-time instructors. Other highly qualified instrumentalists are available to teach voice, piano, organ, classical guitar, brass, percussion, strings, and woodwinds.

Andover offers courses for the beginner as well as for intermediate and advanced students both at the applied level (study of musical instruments or playing in a musical organization) and in the history, appreciation, and theory of music. An entering student who has not had the opportunity to learn to play may join a class to study an orchestral instrument. He or she may also, for a nominal fee, study privately.

The Nature of Music, or Music 20, is the diploma requirement in music, and a prerequisite for most courses in the history, appreciation, and theory sections. A more advanced three-part course, Theory of Music, runs in sequence throughout the year.

Graves Hall, the department's home, has large rehearsal halls for the Concert Band and the String Orchestra, many individual practice and ensemble

rooms, one music classroom, teaching studios and an electronic music studio. The department also has a large, up-to-date record library and listening room. The Chorus has a fully equipped rehearsal room and a library of music literature in the Cochran Chapel, a short distance away. The Chapel also houses three organs for the use of beginning and advanced organ students.



## ART

### *Introductory Studio Courses*

Visual Studies  
Visual Studies for Juniors  
Introductory Ceramics  
Introductory Photography  
Art Studio

### *Intermediate Studio Courses*

Drawing  
Animation  
Two-Dimensional Design  
Three-Dimensional Design  
Intermediate Ceramics  
Intermediate Photography

### *Advanced Studio Courses*

Visual Studies (Art 10) is a prerequisite for all advanced courses.

Graphics and Photography  
Studio Photography  
Painting  
Filmmaking  
Advanced Ceramics  
Print Shop  
Advanced Photography  
Sculpture  
Kinetics  
Architecture  
Contemporary Communications  
Puppetry  
Calligraphy: The Art of Lettering by Hand

Advanced Placement in  
Studio Art  
Art and Architecture in Antiquity and the Middle Ages (History)  
Art and Architecture in the Renaissance and Baroque (History)  
Art and Architecture Since the French Revolution (History)

## MUSIC

### *Applied*

Beginning Instruments  
Recorder Ensemble  
Brass Ensemble  
Woodwind Ensemble  
String Ensemble  
Fidelio Society  
Band  
Chorus  
Chamber Orchestra  
Private Instrumental and Vocal Lessons  
The Nature of Music  
Developing Musical Skills  
*History and Appreciation*  
Medieval and Renaissance Music (to 1600)  
Baroque Music (1600-1750)  
Classical Music (1750-1820)

Romantic Music (1820-1900)  
Twentieth Century Music (1900-Present)  
Independent Study in the History and Literature of Music  
Jazz  
Popular Music in America

### *Theory*

Orchestration and Conducting  
Theory of Music I  
Theory of Music II  
Theory of Music III  
Electronic Music  
Advanced Techniques in Electronic Music

## PERFORMING ARTS

### *Theatre Courses*

Introduction to Theatre  
Introduction to Acting  
Public Speaking  
Acting Workshop  
Scene Study  
Directing Workshop  
History of Theatre  
Stagecraft  
Play Production  
Shakespearean Workshop  
Playwriting

### *Dance*

Introduction to Dance

## CLASSICS

The author of *War and Peace* said, "Without the knowledge of Greek there is no education." For two hundred years Greek and Latin have been taught at Phillips Academy with the conviction that these origins do define the goals of civilization, as the school's motto states. Although the present-day diploma requirement may be fulfilled in Latin or Greek or in any of five other foreign languages, the Classics Department continues to transmit the heritage of man's reason, invention, awe, sense of beauty, tragedy, logical communication and social experience for the purpose of developing intelligent responses to man's present problems.

Complete sequences of study in the languages themselves provide a direct entry into this heritage; the department also presents elective courses in English on Greek and Roman history and civilization, literature, mythology, epic, and etymology; it prepares new textbooks, produces plays in Greek and Latin, guides independent research by advanced students, and takes a hand in expanding the library's exceptionally rich resources.

### THE CLASSICS

*First-year Greek:* basics of language and culture

*Accelerated first-year Greek:* two years in one

*One-term introduction to Greek language and culture*

*Second year:* Xenophon, Plato, New Testament

*Third year:* Homer, Euripides

*Fourth year:* Sophocles, lyric poets, Thucydides

*First-year Latin:* basics of language and culture

*Accelerated first-year Latin:* two years in one

*One-term introduction to Latin language and culture*

*Second year:* Caesar, Livy, Plautus

*Third year:* Cicero, Sallust, Vergil

*Fourth year:* Vergil's *Aeneid*

*Fifth year:* Horace, Catullus, Livy, Tacitus

Greek Civilization

Roman Civilization

Epic Poetry

Etymology

Ancient History

Classical Mythology

Survey of Greek literature

Survey of Roman literature

## ENGLISH

Convinced that level of achievement is more important than the number of years a subject is studied, the English Department has established modest but firm diploma requirements. A student must prove himself competent in writing and reading through the English Competence course and, by taking the Literature Sequence, acquire a sense of the depth and breadth of his literary heritage.

Once the student has successfully completed that Literature Sequence, which normally takes a year and offers several options, opportunities multiply. Students may enroll in any of the Literature Sequence courses that they have not yet taken; they may study any of the more than twenty advanced or specialized courses offered by the department; Seniors may qualify for an independent project supervised by the teacher of their choice.

The department also serves the needs of less







advanced students. Tutorials are offered for training in the fundamentals of language. The normal course for Juniors (ninth-graders) is English 10, designed to teach the students mastery of the sentence and the paragraph, a sensitivity to literature, and an awareness of the challenge of articulate communication.

The walls that used to separate academic departments are crumbling. Many courses in the Performing Arts, most notably in Theatre, are taught by members of the English Department. Most of the interdisciplinary courses are related to English studies. A course in English etymology is taught by the Classics Department. Several of the foreign language departments offer courses about their literature in English translation, but the fundamental requirement does not change. Every student who graduates from Andover has either passed the Competence course in the basic skills of writing and reading or has proved himself competent on the departmental examinations.

## ENGLISH

### *Introductory Courses*

English for ninth graders  
Language Skills

### *Required Sequence Courses*

English Competence (one term)  
Lit A, 20th Century (two terms)  
Lit B, 1660-1900 (two terms)  
Lit C, Shakespeare (one term)

### *Elective Courses*

(Only courses with sufficient enrollment will be given.)  
Efficient Reading  
Irish Studies  
Great Writers Before 1850  
Introduction to Writing  
Hemingway: The Man and His Work  
Black Literature: Toward the Promised Land  
James Joyce  
Man and God  
Forms of Literary Imagination

### *Modern Playwrights*

Shakespeare: The Man, The Times, The Theatre, The Plays  
Satire and Comedy  
Novel and Drama Seminar  
Creative Writing  
American Writers of the Twentieth Century  
Milton and Spenser  
Chaucer and his Age  
Wit and Poetry in the Seventeenth Century  
Writing Short Fiction



## HISTORY AND SOCIAL SCIENCE

The thirty-one courses in History and the Social Sciences cover a broad spectrum of human experience: from the Vietnam War to ancient Athens, from modern art to primitive cultures, from the American family to Chinese society. They range in teaching techniques from drill in close reading, note-taking and testing to individual projects, written or oral, conceived by students. All are based on the conviction that a citizenry that is informed about man's experience, both past and present, is essential to a democracy such as ours, and on the hope that once interest in the story of man has been kindled, it will be pursued for the rest of an individual's life.

No course in the department uses a formal textbook. Students work with paperbacks, books on reserve in the library, mimeographed handouts, movies, and slides. In all courses emphasis is placed not only on the subject matter studied but also on the acquisition of basic historical skills that should serve the student well throughout the remainder of his educational career.

The courses for the two lower classes are focused on three courses in biography—American, European,

and Asian. The department believes that the study of Great Men and Women is particularly appropriate for younger students. In addition, these courses are designed to prepare the students for the course in United States History to be taken in the Upper or Senior year and for other upper level history courses. Other courses for the lower classes include one in anthropology and one in modern China.

The diploma requirement for history is successful completion of United States History plus one trimester elective taken in the Upper or Senior year. Again the approach is topical; the traditional aim of training students to handle historical material with discretion and to write essays containing substantive factual support for general statements remains; the pedagogical techniques for accomplishing this are constantly under review. In United States History, and in many of the trimester electives, students are required to choose their own topics for an extensive paper; they are encouraged to use the raw materials of history — newspapers, letters, diaries, interviews. Qualified students in American History may spend the spring term in Washington, working as interns in Congressional offices.

### HISTORY AND THE SOCIAL SCIENCES

#### *Social Sciences*

Ethnicity and Racism in

American Society

China Today

The Emergence of Man

Environments and the Individual

Introduction to Economics

#### *History*

Modern Japan

Leaders of the Western World:

The American Scene

Leaders and Issues of the Western

World: The European Scene

Asian Biography

The United States

East Asia in Revolution

The Discovery of India

Modern Europe: A Survey

Modern Russia

International Relations: The

Present Patterns

Topics in the History of Phillips

Academy and Abbot Academy

Victorian England: England in an

Age of Expansion

The Rise and Fall of the American

Presidency

The City in America

Schools in America

Families in America

Quantitative Historical Data

Analysis

Women in History

Art and Architecture in Antiquity

and the Middle Ages

Art and Architecture in the

Renaissance and Baroque

Art and Architecture Since the

French Revolution

American Art History, 1770-1950

Ancient History

Elizabethan England

The Middle East

Modern Russia: History and Literature

Major "Isms" and the Nation State

American South



Graceful Bulfinch Hall (1819) has been in Academy use for more than 150 years as a recitation hall, gymnasium, dining hall and now houses Andover's English classes. Dr. Oliver Wendell Holmes, Class of 1825, immortalized "the classic hall" in his poem, "The School-boy," written 100 years ago for the Academy's Centennial Celebration.

## MATHEMATICS

The opportunity to study mathematics at Andover is limited only by the interest and capacity of the student. The teaching staff has had a wide variety of training and experience. Some have been engineers, aviators, naval deck officers, navigators, musicians, athletes, or chefs, and all have been well trained in mathematics, most of them having at least a master's degree in their field. They are men and women who have contributed to the teaching profession by writing textbooks, by writing articles for journals, by serving on committees of such national organizations as the National Council of Teachers of Mathematics, the School Mathematics Study Group, and the College Entrance Examination Board Committee. More importantly, they are devoted to teaching a subject which they find fascinating and which they wish to make fascinating for others.

To serve all needs, the mathematics curriculum is built around a core sequence of eight trimester courses, three of elementary algebra, two of geometry, and three of precalculus topics, completion of which will satisfy the diploma requirements and provide a firm foundation for more advanced study. A student entering with little or no prior study of algebra normally starts with Elementary Algebra, those with a partial year of algebra enter Algebra and continue to Geometry. Students entering with a full year of algebra enter Geometry. Those with one year of algebra and one year of geometry will satisfy diploma requirements by taking Intermediate Algebra and Elementary Functions for one year.

Besides the standard sequential courses, the depart-

ment offers many elective, term-contained and year-long courses, descriptions of which may be found in the *Course of Study*. Faculty in the department are always willing to guide students in individual projects. Projects have in the past been in such fields as probability, computer programming, computer assembly languages, the theory of numbers, advanced geometry, linear algebra and Markov Chains.

The required sequential courses involve algebra, geometry, logic, statistics, computer programming, elementary functions and elementary probability. The elementary and advanced elective courses include the study of limits and sequences, number theory, elementary and advanced calculus, analytic geometry, differential equations, probability, statistics, computer analysis, linear algebra and vector analysis.

The Mathematics Department is located in Morse Hall, which was completely remodeled in 1964. It houses the campus computer center which offers time sharing in the BASIC-PLUS language through ten public terminals. Instruction and practice in the use of the computer are given in the required course sequence. The computer is a PDP-11/45 manufactured by the Digital Equipment Corporation.

Over one-third of all mathematics at Andover is taken electively, much of it in preparation for the Advanced Placement Examination. In 1976, over 100 students took the exam. The community of students who like math at Andover is sizeable, and they share their curiosity and knowledge by offering to tutor other students at the school.

### MATHEMATICS

*Courses Leading to Satisfaction of  
the Diploma Requirement*

Elementary Algebra

Algebra

Geometry

Intermediate Algebra and

Elementary Functions

Geometry and Circular Functions

Precalculus

Elementary Functions

### Elective Courses

(Only courses with sufficient  
enrollment will be given.)

Intuitive Calculus

Exploring Data

Probability and Statistics

Statistics

Transformation Geometry

Mathematics Revisited

Theory of Numbers

Computer Programming

Numerical Methods

Elementary Calculus

Infinite Series and Differential  
Equations

Honors Calculus

Calculus Continued and Other  
Topics

Linear Algebra and Vector  
Calculus

*Special Courses*

Mechanical Drawing (Elementary)

Mechanical Drawing  
(Intermediate)

Mechanical Drawing (Advanced)

Navigation (Coastal Piloting)

Navigation (Celestial)

## MODERN FOREIGN LANGUAGES

As long ago as 200 B.C. the Latin poet Ennius used to say that because he knew three languages he had three hearts. Surely Phillips Academy can render no finer service to today's world than to send forth its alumni with many hearts, ready and able to feel for, to understand, and to respond to the millions of people who speak languages other than English.

The modern foreign languages offered at Andover are French, German, Italian, Russian and Spanish. From the very beginning, emphasis is on the spoken word, and only the foreign language is used in the classroom. Small classes of approximately fifteen students make possible maximum participation, with supplementary aural-oral practice provided by our extensive language laboratory.

There are opportunities to join accelerated classes which complete, for example, the work of four years in three. Courses at the 4th-, 5th- and 6th-year levels may include the study of the art, history, geography and literature of the foreign country. In special upper level courses students can prepare for the Advanced Placement examination which will qualify them for advanced language courses when they enroll in a college. Superior students may carry out an independent project in apprentice teaching under careful faculty supervision.

For Andover's School Year Abroad program, see page 43.

### French

Before the outbreak of the French Revolution, French was considered the universal language of the West. It was the language of diplomacy, was already flourishing as a literary medium and because of its clarity and precision, reflected both French culture and philosophy, influencing the development of democratic institutions in the United States, as well as in other countries. The study of French rewards the student with the ability to communicate with French-speaking peoples and enables him to appreciate the importance of order in expression, broadening his views through a growing familiarity with the rich and lively literature and civilization that the language represents.

The Andover student may at the third year of French elect any sequence of trimester courses in literature,

civilization or intensified language study. In the fourth, fifth and sixth years this study can continue in greater depth. School Year Abroad offers a year program in Rennes. A six-week Short Term Institute immersion in French provides further curricular options. A weekly *Veillée*, sometimes a French-speaking dormitory, and a radio program on WPAA give students the opportunity to speak under different circumstances outside the classroom.

### German

German is central Europe's principal language, and knowledge of it opens up an understanding of European culture and affairs. Students may learn German to read the works of Goethe, Schiller, Lessing, Kafka, Hesse, Brecht and Grass in their original form, or to follow the arguments of Hegel and Nietzsche, or perhaps to understand more intimately the background of modern socialism and democracy in the world. Many of the most important developments in modern physics, electronics, chemistry and engineering were originally published in German, and American businesses have realized the importance of personnel able to speak German.

The German Department offers a six-year course with the purpose of developing the ability to understand spoken German, facility in speaking, reading fluency, and the ability to write German correctly. The more advanced courses give an introduction to German literature since the eighteenth century and a survey of German history, culture and geography.

### Italian

The Italian language is enjoying a rise in popularity growing out of an awareness of its own linguistic charm, and of the cultural treasures it represents. Andover is among the few independent schools with the distinction of an Italian program. The accelerated course for Seniors attracts students with rich experiences in other languages, is conducted in Italian, and has the scope of a course for college freshmen.

### Russian

Approximately 40% of Russian secondary school students are learning English. Although secondary school is still the best place to begin, only a fraction of 1% of American secondary school students study



Russian.

If, as treaties and exchange programs suggest, the U.S. and Russia are in a continuing era of cooperation and understanding, must our doctors, legal experts, scientists, educators and businessmen be obliged to carry on all mutual investigations with Soviet counterparts in English? Certainly, from the standpoint of mutual respect and understanding, this is neither desirable nor advantageous. The obvious solution is an increasing pool of intelligent young American men and women who know the Russian language.

Occasionally supplemented by visiting instructors from the Soviet Union, the Russian Department consists of four instructors, all of whom have travelled and studied in the USSR. The department offers a course of five years of study. An accelerated sequence enables qualified students to complete four years' work in three and receive four years' credit. Russian as a

second foreign language is a popular choice. However, many of Andover's 9th and 10th graders successfully choose Russian as a first language.

### Spanish

The Spanish Department is anxious to help students discover the rich variety of cultural heritage in the Spanish-speaking world through intensive study of the language, both spoken and written.

It seems particularly important for students to learn a language spoken every day by millions of Americans living in major cities and towns across the United States. Those students who will enter the professions will find Spanish an indispensable tool. But whatever they eventually do, knowing Spanish will be the key to a richer and more rewarding life.

The department meets the needs and tastes of a great variety of students in its multiple offerings in five years, including accelerated courses on campus and overseas.

## MODERN FOREIGN LANGUAGES

Each language offers introductory and intermediate courses, with opportunities for acceleration at those levels. Students are then eligible for the following courses:

### FRENCH

Third-Level Courses:  
Language Review and Contemporary French Life  
Selected Readings  
Village Français  
French Civilization  
Intensive Conversation and Phonetics  
Written Expression  
Literature and Film  
Initiation to the French Theatre  
French Literature  
French History  
French Civilization Outside of Europe  
Québec et les Québécois  
Advanced Conversation and Phonetics  
Stylistics  
Advanced Placement:  
French Language  
French Literature  
Contemporary Literature  
Senior Projects

### GERMAN

Literature, Composition and Conversation  
Literature for Advanced Placement  
Special Topics  
Senior Projects

### ITALIAN

Introductory Course for Seniors, accelerated

### RUSSIAN

Literature, Composition and Conversation  
Advanced Literature, Composition and Conversation  
Russian Press  
Literature  
Special Topics  
Senior Projects

### SPANISH

Second and Third Year, Advanced, with Winter Term in Mexico  
Spanish Language Review  
Aspectos de la Cultura y Civilización del Mundo Hispánico  
Introduction to Literature, with Grammar Review  
Literature and Culture, with Grammar Review  
Literature for Advanced Placement  
Advanced Studies in Literature  
Special Topics: Literature, Sociology, Culture



## RELIGION AND PHILOSOPHY

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundations of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered in three groupings corresponding to the three quests and at a variety of levels. In each grouping an introductory course is supplemented by courses emphasizing specific issues and by courses emphasizing high-level theory. All courses are elective and involve four prepared class periods.



## SCIENCE

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers Andover students an introductory term-contained course in archaeology in the spring term. The course deals with the prehistoric development of civilization in the four earliest centers: Mexico, Peru, China and the Near East, as well as with archaeological theory and method. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas.

### Biology

Andover provides ample opportunity to develop interest in the biological sciences. In addition to the basic biology course, the department offers advanced courses in ecology, anatomy and physiology, animal behavior and Advanced Placement biology. The basic course gives students a general background and an understanding of some of the current trends in biology. Field trips, laboratory work, independent projects, lectures, slides and films are all part of the course.

Animal Behavior studies some of the wildlife in

## RELIGION AND PHILOSOPHY

### I. *The Search for Meaning*

The Religions of Man  
Biblical Narrative: The Personal Dimension  
Religion and Culture  
The New Testament  
Views of Human Nature  
Existentialism

### II. *The Search for Justice*

Values Clarification  
Ethical Issues in the Sciences  
Law and Morality  
Nonviolence in Theory and Practice  
Ethics and Education  
In Search of Justice: from  
Socrates to Marx

### III. *The Search for the*

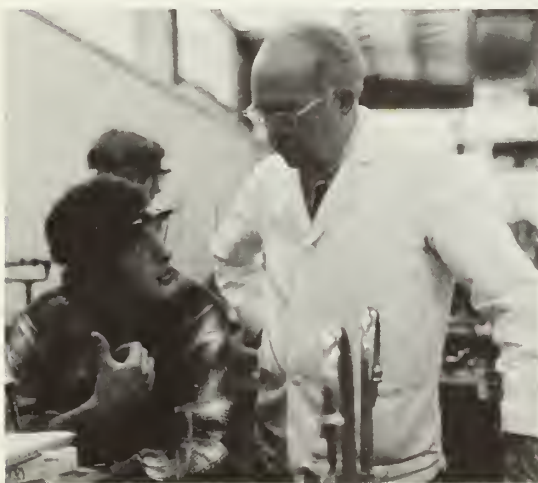
*Foundations of Knowledge*  
Proof and Persuasion  
Great Philosophers

eastern Massachusetts. The course plans field trips to the coast, salt marshes, lakes and wooded areas within a few hours of Andover.

An advanced biology course prepares older students for the Advanced Placement exam. The material offered by the basic biology course is reviewed, and new concepts, techniques and examples are also presented. The labs give students experience in the techniques of centrifugation, chromatography, electrophoresis, spectrophotometry and statistical analysis.

Informal field trips are held throughout the year for interested students who may or may not be currently enrolled in a biology course. The small zoo in Evans Hall is maintained by students. Its population varies with student interests and the reproductive rate of the animals. The department is equipped with a phase microscope and several camera attachments for studying photomicrography. In the basement of Evans Hall there is an extensive bird collection on loan from Harvard University, a shell collection and a natural history museum maintained by interested students.

The Evans Hall greenhouse is a refreshing place to visit during the long winter months. Students grow plants there or start potted plants for their own rooms. An environmental growth chamber is available for those interested in photoperiodism. Independent study is encouraged, and, indeed, is the basis of several of the term-contained courses.



## Chemistry

The Chemistry Department offers full-year introductory courses at various levels which enable students to continue work in chemistry after completing the first course.

Students have undertaken many special projects in the well-stocked laboratory. For example, one student recently investigated the "Miller experiment," the synthesis of amino acids by electric discharge through methane, water vapor and ammonia. Another examined the colors of optically active coordination compounds of cobalt. One student spent a term synthesizing organic compounds and examining their infrared spectra. Two students have studied organic qualitative analysis as an introduction to the chemistry of organic functional groups. Although qualitative analysis has been included in the latter part of many elementary courses in organic chemistry, this may be the first instance of its use at the very beginning.

Students usually suggest their own experiments, but they can also adopt and change existing projects in a creative way. A student might design computer programs for chemistry problems, study the use of microchemistry to diminish school laboratory pollution, or explore molecular structures with infrared spectroscopy.

The department has the equipment for the usual experiments in elementary synthesis and analysis, including five Mettler single-pan analytical balances. There are instruments which enlarge the scope of feasible projects — a pH meter, several vacuum tube voltmeters, a Kontes Universal Electrode Kit, a Kern polarimeter, a Bausch and Lomb Spectronic 20 colorimeter and a Perkin-Elmer 700 infrared spectrophotometer. Convenient access to the computer (PDP-11, resource time-sharing system) in the Mathematics Department is provided by a teletype terminal located in the Chemistry wing of Evans Hall.

## Physics

The Physics Department teaches four basic courses of various degrees of difficulty. Most require laboratory work and consist of classroom demonstrations, discussions and problem-solving. Also offered are courses in earth science, astronomy, physical science as well as college-level Advanced Placement courses for older students.

Project work may be done for credit or merely one's own satisfaction. In recent years students have transmitted conversations by means of laser beams and built a Van de Graff proton accelerator. One student worked on holograph experiments; another built his own electronic calculator. Other students have used sophisticated equipment to measure the velocity of light, determine Planck's Constant and perform experiments of their own design. In recent years astronomy has become a larger and more active subset of the department.

## Psychology

Individual instructors in the department welcome the opportunity to discuss special interests with any student and have sponsored individual projects such as a study of student values, the evaluation of a social service experience and a program of reading and discussion in a specialized branch of the field.

## ARCHAEOLOGY

Archaeology

## SCIENCE

Introductory Physical Science

Preparation for the Physical Sciences

Earth Science

Astronomy—the Solar System

Introduction to Energy

Oceanography

Ecology

Introduction to Zoology

Introduction to Physics

Energy and the Future

Applied Human Biology

Biology

Introductory Biology

Anatomy and Physiology

Advanced Placement Biology

Chemistry

Chemistry-25

Chemistry-30

Research in Chemistry

Elementary Organic Chemistry

Chemistry-44

Chemistry-52

Chemistry-55

Physics

Physics-20

College Physics-30

College Physics-30-23

The Physics of Technology

Advanced Physics

Physics Honors

Relativity and Quantum

Mechanics

Special Science Courses

Animal Behavior

Observational Astronomy

Astronomy—The Universe

Beyond the Solar System

Geology

Dr. Charles Abbot, Class of 1891, a solar energy pioneer and head of the Smithsonian Institution for many years, predicted in the early 1940's that solar energy would become the primary source of power when oil and coal were depleted. In 1972, he received his last patent, for a device to convert solar energy into electricity, shortly before his 100th birthday.



## Other courses

INTERDISCIPLINARY

Study Skills

Synthesis: A Multidisciplinary

Approach to Problems

Literature of the Quest

Russian Literature in English

Soviet Literature in English

French Music in French

Greek Literature in Translation

Roman Literature in Translation

Typing

## PHYSICAL EDUCATION

All new Juniors and new Loweres are required to elect one trimester of PE. 10 in addition to their regular athletic commitment.

Physical Education







## Complementary Programs

Andover's complementary programs combine a number of innovative ideas designed to promote better coordination between public and private education nationally. The concept behind these programs is that of multiple schools. While one school may be accepted as the "home-base" diploma-granting institution, several other institutions may be utilized as complements to this school. Thus far, the multiple schools idea has taken form in several program models which are open to Phillips Academy students as well as students from other schools.

### The Andover Summer Session

The Andover Summer Session is a short intensive academic program in which both innovative and traditional courses are taught in only six weeks. Courses in all subjects and at all levels demand hard work — harder work than most students have ever before experienced. Besides English, modern and classical languages, mathematics, history, and the sciences, the curriculum offers such opportunities as Play Production Workshop, Social Psychology, Great Philosophers, Morality and the Law, Masters of the American Film, Archaeology and Anthropology, Oceanography and Marine Biology, Modern Economics, and the American Presidency.

Other features of the Summer Session are a special Writing Program, including the nationally known "Competence in Reading and Writing" (developed at Andover); an expanded ESL Program (English as a Second Language) for foreign students who wish to achieve English fluency; and a Chamber Music Program which provides a unique opportunity for musical students in all combinations of piano, strings, winds,

and voice, including individual instruction, small ensemble work, orchestra, and chorus. The Chamber Music Program is an integral part of the Summer Session with class hours, afternoon activities, mealtimes, etc., the same for music participants as for all other students.

The Summer Session makes use of all the school's facilities and is open to able boys and girls from all parts of the country and abroad. Applicants must be graduates of the 9th, 10th, 11th or 12th grades. The faculty and staff are an expert and diverse group of men and women, some of whom come from Phillips Academy and some from other schools and colleges. A catalog can be obtained by writing The Andover Summer Session, Phillips Academy, Andover, MA 01810 or calling 617/475-3400, ext. 170.

### (MS)<sup>2</sup>

The (MS)<sup>2</sup>—Math and Science for Minority Students —program offers minority students a better opportunity to enter technological fields at the college level. (MS)<sup>2</sup> provides three consecutive tuition-free summers of study at Andover. Ninth grade boys and girls are selected for their superior ability and strong interest in mathematics and science. The goal of (MS)<sup>2</sup> is to prepare minority students to compete successfully for careers in science, engineering and medicine. Further information can be obtained by writing:

### (MS)<sup>2</sup>

Andover Summer Session  
Phillips Academy  
Andover, MA 01810



### The Short Term Institutes

The Short Term Institutes at Andover are intensive, multi-week courses of study in a single subject, designed to offer high school students a unique residential learning experience. First taught in the fall of 1974, the Institutes are scheduled during the winter and spring of each academic year and are intended to complement a student's home school program, not compete with it.

The average Institute enrolls a dozen students who are together for four hours of class, lab and work each day. Most STI students have been Seniors, but the program is open to any highly recommended student in the 10th, 11th or 12th grades.

While the curriculum changes from year to year, the STI program usually offers study in modern languages, physical and biological sciences, mathematics, and English. However, the actual courses themselves are generally rather innovative. Some of the past Institutes have been Issues in Law, Medicine and Education, Biochemistry, Creative Writing, Visual Studies, Advanced French, Finite Mathematics, Psychology, and Animal Behavior. All Institutes are taught by Phillips Academy faculty members.

STI students live together in a complex of dormitories and have at their disposal all the usual social, athletic and academic facilities of the Academy, as well as access to a variety of cultural facilities in Boston.

Time is scheduled during which STI students can partially maintain modest obligations to their home school classes. Most students are fully caught up within two or three weeks of their return home. Some STI students have been granted college credit for their Institute work, and the Dean of the STI program is happy to fill out college recommendations for any STI graduate.

For further information write to Mrs. Jean McKee, Director of Admissions, The Short Term Institutes, Phillips Academy, Andover, MA 01810 or call 617/475-3400, ext. 172. Applications deadline is December 8, 1978, for winter Institutes and March 9, 1979, for spring Institutes.

## School Year Abroad

School Year Abroad conducts programs for upper-classmen in France and Spain. Originated by Andover as an off-campus program, it was later jointly sponsored by Andover, Exeter and St. Paul's School. Students may spend a full academic year living with host families while pursuing a course of study under the supervision of teachers from the original sponsoring schools. The program provides full academic credit, permitting students to graduate from Phillips Academy with their own class, as well as the experience of immersion in a foreign culture. Qualified Upper Middlers and Seniors, who will have completed the American history and laboratory sciences requirements, are eligible for School Year Abroad. A catalog can be obtained by writing School Year Abroad, Samuel Phillips Hall, Phillips Academy, Andover, MA 01810.

## The National Network of Complementary Schools

Phillips Academy is a member of the National Network of Complementary Schools, which provides its students the opportunity of attending, on an exchange basis, the intensive specialized programs offered by member schools.

The Network is a group of diverse schools which have joined together to serve their students in a new and unique way by sharing their specialized programs. Structured on an "intensive" basis so that the student normally focuses on a single topic or is fully involved in one internship, most of the Network programs are offered because they exploit a special strength or resource of a particular school.

The excitement and challenge of these programs are increased by the opportunity to experience a new and different community. Students travel to the other school locations on a "term-length" basis; live with local families or in dormitories, in the case of boarding schools, and experience studying with a new group of students.

The Network was conceived and planned in 1974 by administrators from Phillips Academy and Beverly Hills High School, Beverly Hills, California. The Short Term Institutes at Andover are offered as the Academy's Network program.

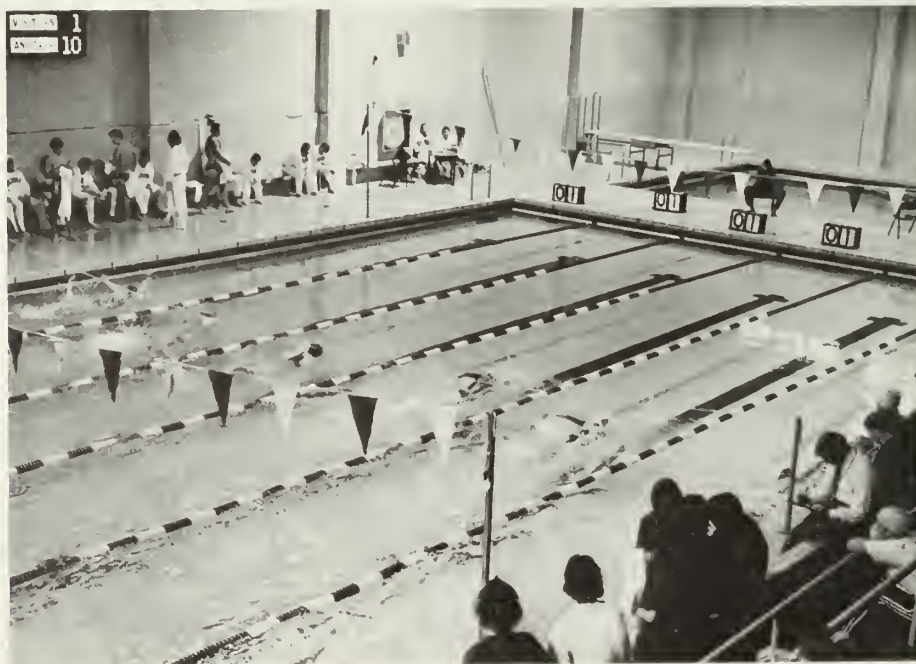
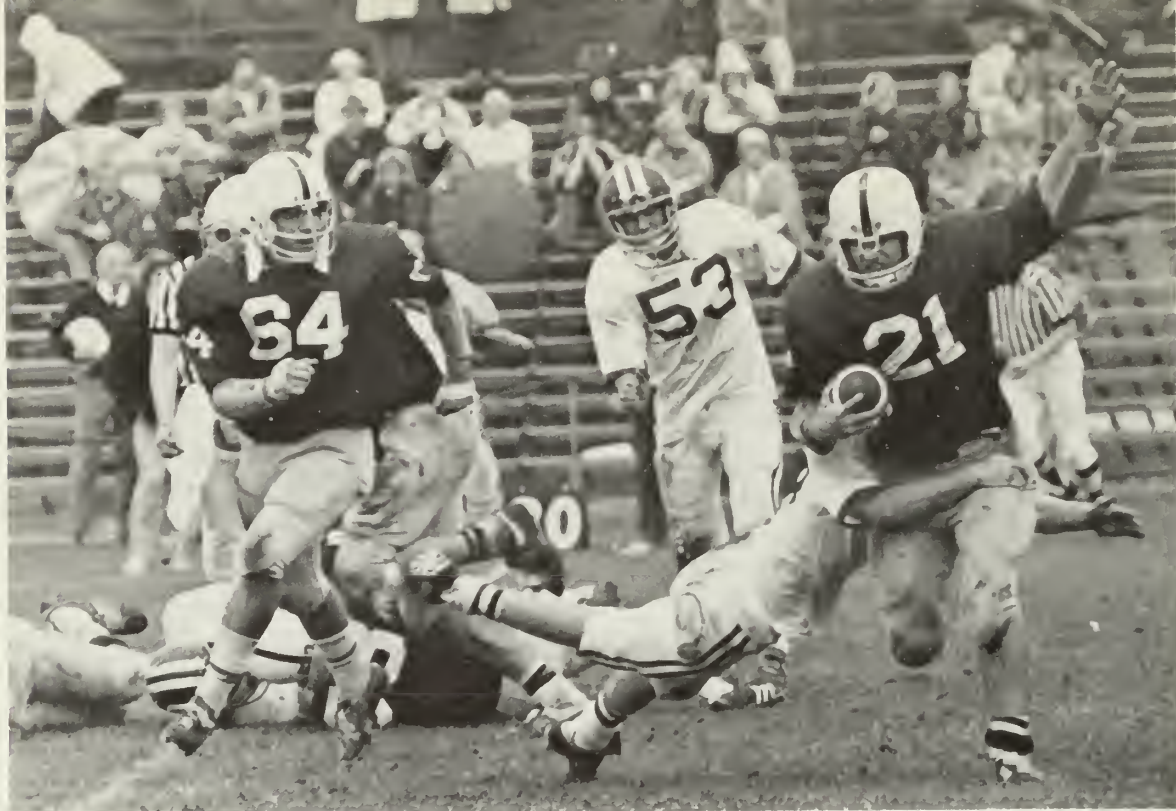


## Other Complementary Programs

Andover offers several complementary residential programs. The Washington Intern Program, sponsored by Andover and Phillips Exeter Academy, allows a group of Upper Middlers to spend the spring term in Washington working in the offices of U.S. Senators and Congressmen.

In addition to school-sponsored programs, many Seniors arrange off-campus projects related to their special interests. Some have worked as interns with officials in local government and members of the Massachusetts legislature, while others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative and careful planning of a course of study that will meet diploma requirements and free a block of time during the term.







## Athletics



Archie Bush, Class of 1866, returned from the Civil War to complete his studies and organized a baseball team for Andover's first interscholastic sports competition. When Archie and his friends cut a geometry class to attend a baseball game, Principal Samuel Harvey Taylor, who brooked no nonsense, kicked them out of school. The Trustees rescinded this action years later and granted them all diplomas. Too late for Archie, who had died on his honeymoon trip to Europe.

In sports, as in studies, students are expected to meet basic requirements and are given wide choice in broadening and deepening their skills, interests and dedication in athletics.

A basic evaluation test is given to all new girls and boys to insure that each student has the physical skills necessary for further participation in the athletic program. Special courses are required of those students whose test results indicate a need for attention in the area of physical aptitude. Similarly, non-swimmers are given instruction toward meeting reasonable standards of proficiency. In addition, new Juniors and Lower Middlers have physical training four hours a week for one term of their first year, as well as regular athletics.

The regular afternoon athletic program includes a wide variety of offerings in varsity and junior varsity competitive interscholastic sports, in intramural cluster-organized athletics and in instructional and recreational physical activities. Wherever numbers permit, separate interscholastic competitive team programs are created for Junior boys.

Upperclassmen have the opportunity to substitute an activity or project for one term of athletics a year. Each spring the department offers a Senior Life Saving course and a Water Safety Instructors course for those swimmers who wish official accreditation.

The school maintains several athletic facilities which include 12 playing fields and 25 tennis courts; the Borden and Memorial Gymnasiums with swimming and diving pools, basketball and squash courts, weight training room and other conventional gym spaces; the newly renovated Case Memorial Cage with its indoor track; the Sumner Smith Hockey Rink; the crew boathouse on the Merrimack River;



the ski trails and jump at Holt Hill; and the Search and Rescue Room in Evans Hall, which provides the base of operations for Andover's popular outdoor program.

Phillips Academy is committed to a required athletic program that provides a variety of sports and activities to its students. The Academy discourages overspecialization in sports at this age level; the athletic program is a complement to, not a substitute for, the academic curriculum. The Athletic Department oversees the program and its facilities with the support and advice of the Faculty Athletic Committee and the Student Athletic Advisory Board.

#### FALL TERM

**Girls**  
Field Hockey  
Soccer  
Tennis  
Cycling  
Karate  
Search & Rescue  
Crew  
Cross-Country  
Ballet  
Modern Dance  
Squash

**Boys**  
Football  
Tennis  
Cycling  
Search & Rescue  
Crew  
Cross-Country  
Soccer  
Golf  
Karate  
Ballet  
Modern Dance

#### WINTER TERM

**Girls**  
Track (non-competitive)  
Swimming  
Basketball  
Skiing:  
    Competitive (Alpine and Nordic)  
    Recreational (Cross-Country)  
Paddle Tennis  
Squash  
Ballet  
Modern Dance  
Gymnastics  
Search & Rescue

**Boys**  
Track  
Swimming  
Hockey  
Wrestling  
Basketball  
Skiing:  
    Competitive (Alpine and Nordic)  
    Recreational (Cross-Country)  
Paddle Tennis  
Squash  
Gymnastics  
Search & Rescue  
Ballet  
Modern Dance

#### SPRING TERM

**Girls**  
Softball  
Track  
Lacrosse  
Tennis  
Crew  
Karate  
Search & Rescue  
Canoeing/Kayaking  
Cycling  
Ballet  
Modern Dance

**Boys**  
Baseball  
Softball  
Track  
Lacrosse  
Crew  
Karate  
Search & Rescue  
Canoeing/Kayaking  
Cycling  
Tennis  
Ballet  
Modern Dance  
Squash



## Health Care

In the 1840's, the widow of Principal Osgood Johnson devoted herself to the care of sick Seminary students at Samaritan House, built and named for that purpose, now a student dormitory. In spite of this, rows of gravestones mark the toll of epidemics. An Academy graduate of 1890 reports that no such care as Widow Johnson's was available to the Academy students of the 1890's: "There was no infirmary. If you were ill, it was nobody's business but your roommate's, who brought you meals from Marland's unappetizing fare."

The Isham Infirmary-Hospital of Phillips Academy is accredited by the Joint Commission on Accreditation of Hospitals and is fully licensed as a hospital by the Commonwealth of Massachusetts. The hospital has an x-ray department and clinical laboratory with a full-time technician. Qualified physiotherapists are available either in the Infirmary or Trainer's Room. Graduate nurses are on duty twenty-four hours daily, and additional graduate nurses manage the Outpatient Services from 7:30 a.m. to 5:00 p.m. Isham Infirmary-Hospital is staffed and equipped to care for most problems, and nearby general hospitals are available for major surgery or serious emergencies.

In addition to the daily outpatient clinic held by the Medical Director, who is a specialist in internal medicine, regular clinics are conducted at Isham Infirmary-Hospital in dermatology, orthopedics, and dentistry. Staff consultants are available in most specialty fields of practice, and full-time clinical psychologists can provide professional counseling.



## School Costs and Financial Aid

### Tuition 1978-79

Annual tuition for 1978-79 is \$3280 for both boarding students and day students. Day students *must* live in Andover, North Andover, North Reading, Methuen or Lawrence.

### Fees

In addition to tuition, Annual Fees will apply as follows:

	<u>Boarding</u>	<u>Day</u>
Room	\$ 840	\$---
Meals	640	400
Athletics and Activities	115	115
Health	100	80
Total	\$1695	\$595

One half of the above tuition and fees is payable on August 1, and one half on December 1.

Payments may be made instead in ten equal monthly installments starting on August 1 and ending on May 1. A one percent service charge is made for this plan. Another alternative is the use of the Insured Tuition Payment Plan, arranged with a private agency. Information about these two alternatives and application forms are sent to parents before the first bill is due.

No rebate will be made against the amount of the installment due on August 1 for any student who for any reason is dismissed or withdrawn after the opening of school in the fall. No rebate will be made against the installment due on December 1 for any student who is dismissed or withdrawn after returning to school at the beginning of the winter trimester.

These charges cover instruction, board, room (including basic furniture), physical training and most athletic privileges, use of laboratory equipment and material, admission to all authorized



athletic contests and most authorized entertainments at George Washington Hall or elsewhere on campus, including the Saturday evening motion pictures. An additional charge of \$30 is due with the first tuition payment for providing and laundering bed linen of the boarding student.

The school charge does not include tutoring, language training, special instruction in music or certain athletics, materials fees for art courses, medical expenses, personal laundry, textbooks, dues to school organizations or breakage and damage to school property. The school provides uniforms and most athletic equipment. Students are required to bring their own footwear and urged to bring along whatever other personal athletic equipment they already possess. Bills for items not included in the school charges may be rendered at any time during the school year.

Students otherwise eligible to return in a given school year will not be allowed to register if their school accounts for the preceding year have not been paid in full. The diploma of the Academy will not be awarded to students whose school accounts are not paid in full by June 1.

### Other Expenses

As a rough guide to parents in budgeting for the total expected expenses of each academic year, the following low-average approximations of extras are given:

Travel	According to home location
Athletic equipment	\$ 75.00
Laundry and Cleaning	125.00
Medical Insurance (optional)	35.00
Books and supplies	190.00
Dues, publications and charitable contributions	20.00
Breakage Deposit (refundable)	50.00
Miscellaneous, including spending money	120.00

### Financial Aid: The Andover Plan

Phillips Academy will do its best to see that no admitted student is denied the chance to attend due to inability to finance his or her education here. To that end, the Academy provides over \$1,000,000 in direct financial aid each year, in addition to

endowment support for all students. Under the comprehensive Andover Plan, families with incomes of up to \$50,000 a year may qualify for some form of direct assistance from the Academy.

The Andover Plan consists of three parts:

- I. General support of all students' educational cost, principally through income from the school's \$57,000,000 endowment, a product of the generosity of past Andover graduates, parents and friends. This income pays more than 40 percent of the real costs of the educational services Andover actually offers.
- II. Scholarships supplemented, as necessary, by a Student Loan Plan, for qualifying students, ranging from several hundred dollars to total costs, as needs warrant and funds permit, based upon information provided through the School Scholarship Service in Princeton, NJ. Repayment of low interest Student Loans begins four years after graduation, with an additional four years allowed for completion. Each family indicating a need for assistance on the Preliminary and Final Application Forms will be mailed a Parents' Financial Statement which is processed by the School Scholarship Service in Princeton, NJ. All awards are reviewed annually and a Parents' Financial Statement must be filed each year if continued aid is needed.
- III. A new Parent Loan Plan, available, at a modest rate of interest, to families in the \$15,000 to \$50,000 income range, as their needs require, with preference given to students entering ninth and tenth grades. Repayment of these loans begins immediately, but repayment of the principal is deferred during the students' college years and then continues for two additional years.

The combination of general endowment support with the programs of Scholarships for low income students, Scholarships and Student Loans for a broad spectrum of need, and Parent Loans for middle and upper income families gives Andover the flexibility to provide maximum assistance to families seeking an Andover education.

## Admissions

Phillips Academy admits students of any sex, race, color, national and ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of sex, race, color, national and ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs.

The school's constitution, written in 1778, states that Andover "shall be ever equally open to youth of requisite qualifications from every quarter." With this principle in mind, the basic requirement for admission to Andover today continues to be evidence of sound character and strong academic achievement. The school is especially interested in candidates who demonstrate maturity and concern for others in addition to high performance in particular studies or activities. Valuing diversity in its student body, the school seeks to bring together a community from all parts of the country and from many nations.

The Admissions Committee selects from over twenty-six hundred candidates the three hundred fifty most promising and deserving young people. The school's endowment covers approximately one-third of the cost of an Andover education. Therefore, in fact, every student receives financial aid. In addition, thanks to the generosity of a large number of alumni and friends, further financial assistance is available (see Financial Aid Section).



## APPLICATION PROCEDURE

Priority will be given to those candidates who complete the application procedure by February 1, and they may expect a decision from the Admissions Committee by March 10. The possibility of admission is considerably lessened for all applicants who complete the process after February 1, and decisions for this group may not be rendered before May 1. It is also possible that 12th Grade and Postgraduate candidates will not be notified until late spring. A deposit of \$100 is required to reserve a place at the time admission is offered to an applicant.

### The four steps for Application

- 1 Submit the Preliminary Application Card and the non-refundable \$15 fee as soon as possible. (Checks are payable to the Trustees of Phillips Academy.)
- 2 Complete the Personal Interview requirement.  
An interview is required of all applicants. Candidates should write or telephone for appointments before February 1st. A visit to the Academy is desirable as it gives candidates a chance to have questions answered and to see the school. Please allow two hours for the tour and interview and be sure to dress with the weather in mind. Candidates who cannot visit the Academy are themselves responsible for arranging an interview with an Alumni representative. (See page 52).
- 3 Return the Final Application Forms.  
Final Application Forms are mailed in mid-November to candidates who have submitted a Preliminary Application card for the following fall. Forms should be returned within three weeks of receipt. (Late applicants should return forms immediately.)
- 4 Take the Secondary School Admissions Test.  
(12th Grade or Postgraduate candidates should refer to the information on this page.)

### Secondary School Admissions Test

The Bulletin of Information for Candidates, published by the Educational Testing Service, Princeton, NJ 08540, will be sent by Andover to all 1979-1980 candidates who have filed a Preliminary Application. This Bulletin describes the Secondary School Admissions Test, which will be given on the following dates:

December 9, 1978	March 3, 1979
January 20, 1979*	April 28, 1979*
June 16, 1979	

\* International administration

Candidates are strongly urged to take the SSAT administered in December, 1978. (The December tests will not be given in foreign countries.) Otherwise, the candidate should take the January, 1979 administration.

### Twelfth Grade or Postgraduate Candidates

Instead of the Secondary School Admissions Test, Senior and Postgraduate candidates must take the





Preliminary Scholastic Aptitude Test or the College Board Scholastic Aptitude Tests. (C.E.E.B., Box 592, Princeton, NJ 08540). After the test date candidates must ask the College Board, in writing, to send all test results to Phillips Academy. A check or money order for \$2 made out to C.E.E.B. must accompany that request.

Postgraduates are full-fledged members of the Senior Class and are eligible for all school activities. Because of their academic credits, they frequently have maximum flexibility in course selection.

#### **Whom to Contact at Andover**

If you have questions about Andover's admissions or application procedures, please contact the Admissions Office.

Director of

Admissions: Joshua L. Miner

Address: Admissions Office  
Phillips Academy  
Andover, Massachusetts 01810

Office hours: Monday through Friday, 9:00 a.m. to 5:00 p.m.  
Saturday, 9:00 a.m. to 12:00 noon

Telephone: 617/475-3400

#### **Early Decision**

Andover will not participate in any early decision plan for admissions in September, 1979.

## **Alumni Representatives**

While it is advisable from the student's point of view to visit the school, frequently distance renders a visit impractical. When this is the case, the candidate should write or telephone for an interview with the most conveniently located Alumni Representative. (Please see list on page 53). A candidate unable to arrange for an Alumni Representative Interview should communicate with the Admissions Office for assistance.

#### **Admissions Interview Schedule**

During the coming school year the representatives from the Administration plan to be in the following cities:

October 2-6	Los Angeles/San Francisco/ Portland/Seattle
October 9-13	Kansas City/St. Louis/Shreve- port/ Atlanta
October 16-20	Cleveland/Chicago/Detroit
October 23-28	Lincoln/Des Moines/Omaha/ Minneapolis
October 30- November 3	Houston/Dallas/Midland/ Nashville/Louisville

Candidates who wish to be interviewed in one of these cities should make arrangements in advance. This may be done by notifying our Admissions Office or by calling the local Alumni Representative whose name is preceded by an asterisk.

ALABAMA

*Birmingham*

Miss Jacqueline Carter '72  
P.O. Box 7964 35228

Robert B. Donworth, Jr. '42  
Bradley, Arant, Rose & White  
Suite 1500, Brown-Marx Bldg.  
2000 First Avenue North 35203

*Mobile*

David F. Dean, M.D. '56  
612 Montclair Way West 36609

ALASKA

*Anchorage*

John K. Brubaker '55  
2110 Otter Street 99504  
Howard S. Reed '45  
6112 Prosperity Street 99504

*Douglas*

Peter B. Eakland '63  
P.O. Box 610 99824

*Fairbanks*

K. Andre McMullen '66  
5003 Dartmouth Road 99701

ARIZONA

*Litchfield Park*

George T. French '29  
P.O. Box 578  
609 North Litchfield Road 85340

*Scottsdale*

Mrs. William E. Dampier '47  
4721 North 70th Street 85257

*Tucson*

Keith S. Brown '31  
3200 North Swan Road 85716  
John S. Greenway '42  
1634 North Olsen Avenue 85719  
Donald B. Rollings '70  
3801 E. Calle Barcelona 85716

ARKANSAS

*Forrest City*

Henry Loeb III '39  
Growers Equipment Co.  
P.O. Box 748 72335

*Little Rock*

Mose Smith III, M.D. '48  
5326 West Markham Street 72205

CALIFORNIA

*Beverly Hills*

Thompson K. Vodrey '52  
1529 Gilcrest Drive 90210

*Davis*

Donald M. Reynolds '38  
4 Parkside Drive 95616



*Fresno*

Geoffrey M. Brittin, M.D. '52  
5688 Columbia Drive South 93727

*Irvine*

John E. Kidde '64  
4881 Royce Road 92664

*Los Altos*

Philip J. Kann '71  
327 Lunada Court 94022

*Los Angeles*

\*David A. Cathcart '57  
Gibson, Dunn & Crutcher  
515 South Flower Street 90071  
George W. Davis III, M.D. '52  
4616 Keniston Avenue 90043  
Walter L. Farley, Jr. '28  
12300 1st Helena Drive 90049  
Trevor A. Grimm '56  
Kaplanis & Grimm  
551 South Oxford Avenue 90020  
John J. Leone '66  
2212 Mandeville Canyon Road  
90049

*Manhattan Beach*

Mrs. James P. Regan '57  
1717 Highland Avenue 90266

*Marysville*

Harold S. Edwards '28  
770 Ramirez Road 95901

*Mill Valley*

Peter W. Lee '60  
80 Montecimas Avenue 94941

*Oakland*

Thomas E. Pollock III '61  
6039 Bullard Drive 94611

*Pacific Palisades*

Mrs. Peter R. Mann '49  
1422 No. Capri Drive 90272

*Palo Alto*

Henry E. Riggs '53  
634 Lowell Avenue 94301  
Donald A. Way '63  
P.O. Box 1588 94302

*Pasadena*

Russell M. Decker '56  
691 Holladay Road 91106

*Riverside*

Peter C. Parsons '55  
Riverside Country Publishing Co.  
P.O. Box 8368 92505

*Ross*

H. Leonard Richardson '45  
1 Circle Drive 94957

*San Diego*

Norman R. Allenby '51  
3222 Quimby Street 92106

*San Francisco*

Letitia Upton Brown '63  
2940 Clay Street 94115  
Miss Dorothy M. Easton '61  
1376 Clayton Street 94114

\*Alan L. Fox '60

415-572-3445  
William W. Sterling '57  
Heller, Ehrman, White & McAuliffe  
30th Floor  
44 Montgomery Street 94104

*San Rafael*

William S. Creighton '39  
32 Wood Oaks Drive 94903

*Santa Barbara*

Mancel T. Clark, Jr. '28  
607 San Ysidro Road 93108

*Sebastopol*

William D. Lynch '38  
10592 Occidental Road 95472

*Shingle Springs*

Marshall T. Gleason '33  
3067 Cambridge Road 95682

COLORADO

*Aspen*

Stephen W. Harris '38  
P.O. Box 1653 81611



John P. McBride '56  
105 Pacific Avenue 81611

*Colorado Springs*  
Mrs. William Boddington '41  
1433 Alamo Avenue 80907

*Denver*  
\*Peter Grant '49  
545 Race Street 80206  
John F. Malo '40  
Alpine Grain Co.  
909 17th Street,  
Suite 305 80202  
David C. Wilhelm '38  
204 Livestock Exchange Bldg. 80216

*Glenwood Springs*  
Rev. George P. Pierce '49  
546 Hyland Park Drive 81601

**CONNECTICUT**  
*Darien*  
David E. Winebrenner '58  
27 Briar Brae Road 06820

*Greenwich*  
Gerard E. Jones '55  
Deer Lane 06830  
  
Roger S. Seymour '44  
50 Porchuck Road 06830

*New Canaan*  
Charles Hirschler '72  
SMART, Inc.  
Box 25 134 Main St. 06840

*Westport*  
Robert B. Simonton '50  
25 Woody Lane 06880



**DELAWARE**  
*Wilmington*  
Mrs. Robert Bryant '65  
2309 Saymore Road 19805  
Mrs. Reeves W. Hart, Jr. '47  
18 Briar Road, Briarwood 19803

**DISTRICT OF COLUMBIA**  
*Washington*  
George W. Beatty '50  
3438 34th Place, N.W. 20016  
Lawrence C. Dalley, Jr. '45  
Brand, Dalley & Co. Insurance  
888 17th Street, N.W. 20006  
Andrew P. Ireland '48  
1513 Longworth Bldg. 20515  
J. Kenneth McDonald '50  
History Department  
George Washington University 20052

**FLORIDA**  
*Gainesville*  
Richard M. Cohen '61  
4313 N.W. 32nd Street 32605

*Jacksonville*  
Arthur W. Milam '45  
Milam & Wilbur  
P.O. Box 58 32201  
Robert D. Van Cleve '50  
Riverside Clinic  
2005 Riverside Avenue 32204

*Key Biscayne*  
Carlos M. de la Cruz '59  
300 Island Drive 33149

*Miami*  
Mrs. Constantinos Emmanuel '54  
6971 S.W. 134th Street 33156  
David J. Williams II '38  
13815 S.W. 84th Street 33143

*Naples*  
Robert W. Hattemer '49  
440 Spinnaker Drive 33940

*Pompano Beach*  
Schuyler Van Ingen '36  
854 South Federal Highway 33062

*Sarasota*  
Parker C. Banzhaf '38  
3435 Sea Grape Drive 33581  
Michael T. Madison '65  
The Marie Selby Botanical Gardens  
800 S. Palm Avenue 33577  
John D. Pitts '56  
324 Bob White Way 33577

*Tallahassee*  
Jerry L. Draper '57  
2026 W. Indianhead Drive 32301

*Winter Haven*  
Richard C. Cheney '48  
1826 Sixth Street, S.E. 33880

**GEORGIA**  
*Atlanta*  
D. Hayes Clement '54  
Arthur Andersen & Co.  
25 Park Place, N.E. 30303  
Herbert R. Elsas '28  
Sutherland, Asbill & Brennan  
3100 First National Bank Tower 30303  
Ernest G. Matton '55  
2815 Ridge Valley Road, N.W. 30327  
\*Peter C. Mohr '54  
1035 Angelo Court, N.E. 30319

*Augusta*  
Samuel C. Dysart, Jr. '46  
809 Aumond Place  
West 30909





**Columbus**

William S. Cain, Jr. '40  
P.O. Box 2125 31902

**Savannah**

William C. Rhangos, M.D. '49  
Savannah Orthopedic Clinic, P.C.  
5212 Paulsen Street 31405

**HAWAII**

**Honolulu**

Mrs. Kyran M. O'Dwyer '55  
6240 Koekea Place 96825  
Thomas L. Stirling '59  
Kelso, Spencer, Snyder & Stirling  
Suite 1800  
745 Fort Street 96813

**IDAHO**

**Boise**

Richard W. Hirst '28  
1210 Happy Drive 83704

**ILLINOIS**

**Buffalo Grove**

Peter G. Pappas '63  
430 Weidner Road 60090

**Chicago**

Robert B. Stearns '70  
1825 North Lincoln Plaza  
Apt. 2208 60614

**Kenilworth**

Mrs. Rita Kallman '52  
535 Brier Street 60043

**La Grange**

\*Ronald J. Floto '61  
219 S. Spring Avenue 60525

**Peoria**

H. Vreeland Whittall '54  
Caterpillar Tractor Co.  
Service Engineering ABCD 61629

**Peoria Heights**

Robert T. Stevenson, Jr. '53  
4849 Grand View Drive 61614

**Quincy**

Mrs. Gary P. Hull '58  
RR #5 62301

**Wilmette**

W. Newton Burdick, Jr. '35  
1630 Sheridan Road, Apt. 8L  
60091 (Office: Pandick  
Press, Inc., 111 North  
Canal Street, Chicago 60606)

**INDIANA**

**South Bend**

Mrs. Robert E. Oswald '56  
3102 South Miami Street 44614

**IOWA**

**Des Moines**

Paul M. Nelson '68  
4112 Lynner Drive 50310

**Iowa City**

Roger D. Milkman '47  
R.R. #6, Box 204  
12 Fairview Knoll 52240

**Waterloo**

Craig W. Nordeen '70  
3917 Del Matro Road 50701

**KANSAS**

**Junction City**

John G. Montgomery '58  
Montgomery Publications, Inc.  
814 North Washington Street 66441

**Stilwell**

James J. Fisher '56  
Route #1, Box 242 66085

**KENTUCKY**

**Bowling Green**

B. Harris Todd III '71  
613 Hampton Road 42101

**Louisville**

H. Hewett Brown '55  
Mutual Benefit Life Insurance Co.  
P.O. Box 70289

100 East Liberty Street 40202

Alexander C. Browne '60  
Almstedt Bros.

425 W. Market Street 40202

Samuel S. Caldwell, Jr. '29  
W.R. Willett Lumber Co., Inc.  
849 Starks Building 40202

\*Philip J. Sorota, D.C. '63

2704C Masemuir Court 40220



**LOUISIANA**

**New Orleans**

Marshall L. Posey, Jr. '55  
2302 St. Charles Avenue 70130

John W. Sibal '70  
Ingram Corporation  
4100 One Shell Square 70139

**Shreveport**

Donald A. Raymond, Jr. '32  
1132 Erie Street 71106

**MARYLAND**

**Annapolis**

H. Richard Duden '43  
Ferry Farms  
N.A. Branch P.O. 21402

**Garrett Park**

Thomas Rodes '54  
Box 36 20766

**Owings Mills**

James L. Shea '70  
Rt. 3, Burnside Farm 21117

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*Assistant Supervisor Outpatient*  
*Department Isham Infirmary-*  
*Hospital*  
St. Luke's Hospital, New Bedford

## ABBOT ACADEMY EMERITI

HELEN BEAN JUTHE  
*Instructor in History, Emerita*  
Altamonte Springs, Fla. 1920-1938

MARY CARPENTER DAKE  
*Instructor in Physical Education,*  
*Emerita*  
Green Valley, Ariz. 1925-1945

M. DOROTHY BAKER  
*Instructor in English, Emerita*  
Bath, England, 1945-1950

DOROTHEA WILKINSON  
*Instructor in English, Emerita*  
Frederickton, N.H. 1939-1953

MARGUERITE CAPEN HEARSEY  
*Headmistress, Emerita*  
Wellesley, 1936-1955

ANNA ROTH  
*Instructor in History, Emerita*  
Franklin, 1942-1956

MILDRED A. HATCH  
*Instructor in Latin, Emerita*  
Chester, N.H. 1946-1961

MARJORIE F. STEVENS  
*Instructor in Mathematics, Emerita*  
Andover, 1945-1961

ALICE CURTISS SWEENEY  
*Instructor in English, Emerita*  
Andover, 1935-1961

HOPE COOLIDGE  
*Director of Food & Housing, Emerita*  
Concord, 1933-1962

RAYMOND COON  
*Instructor in Music, Emeritus*  
Andover, 1946-1962

EDITH TEMPLE JONES  
*Instructor in French, Emerita*  
Fairhaven, Vt. 1954-1967

GERMAINE AROSA  
*Instructor in French, Emerita*  
Essex, 1945-1969

GARDNER SUTTON  
*Comptroller, Emeritus*  
Cambridge, 1947-1971

## PHILLIPS ACADEMY EMERITI

DOUGLAS MANSOR DUNBAR, A.M.  
*Instructor in Mathematics, German  
and Bible, Emeritus*  
Andover, 1942-1958

ROSCOE EDWIN EVERETT DAKE, S.B.  
*Instructor in Chemistry, Emeritus*  
Green Valley, Ariz. 1921-1961

MILES STURDIVANT MALONE, Ph.D.  
*Instructor in History, Emeritus*  
Daytona Beach, Fla. 1937-1962

ELIZABETH EADES, A.B.  
*Director of the Library, Emerita*  
Williamsburg, Va. 1929-1963

EMORY SHELBY BASFORD, A.B.  
*Instructor in English, Emeritus*  
Gaithersburg, Md. 1929-1964

FLOYD THURSTON HUMPHRIES, A.B.  
*Instructor in French, Emeritus*  
Naples, Fla. 1937-1964

JOHN SEDGWICK BARSS, A.M.  
*Instructor in Physics, Emeritus*  
Andover, 1923-1965

DONALD MILLER CLARK, M.D.  
*Medical Director, Emeritus*  
Peterborough, N.H. 1954-1965

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*Instructor in Chemistry, Emeritus*  
Madison, Conn. 1943-1965

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*Instructor in French, Emeritus*  
McIndoe Falls, Vt. 1944-1967

KENNETH SMITH MINARD, A.M.  
*Assistant Dean of Students and  
Instructor in History, Emeritus*  
North Bridgton, Me. 1928-1968

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*Instructor in Religion and School  
Minister, Emeritus*  
Andover, 1930-1968

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Foundation and Instructor in  
Anthropology, Emeritus*  
Andover, 1933-1968

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*Instructor in Mathematics, Emeritus*  
Andover, 1944-1968

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Dean, Emeritus*  
Weston, Vt. 1933-36, 1939-70

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*Director of the Addison Gallery of  
American Art, and Instructor in  
Art, Emeritus*  
Andover, 1933-1969

FREDERICK JOHNSON, S.B., Sc.D.  
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Foundation and Instructor in  
Anthropology, Emeritus*  
Andover, 1936-1969

WALTER GIERASCH, A.B.  
*Instructor in English, Emeritus*  
Pacific Grove, Calif. 1941-1970

LEONARD FRANK JAMES, A.M.  
*Instructor in History, Emeritus*  
Medomak, Me. 1932-1970

FRANCIS BERTRAND MCCARTHY, A.B.  
*Instructor in English, Emeritus*  
Andover, 1941-1970

ALSTON HURD CHASE, Ph.D.  
*Instructor in Greek, Latin, and  
History, Emeritus*  
Berwick, Me. 1934-1971

GEORGE KNIGHT SANBORN, S.B.  
*Instructor in Mathematics and  
Biology, Emeritus*  
Kennebunkport, Me. 1928-1972

JAMES HOOPER GREW, D.es L.  
*Instructor in French, Emeritus*  
North Andover, 1935-1972

ROBERT WHITTEMORE SIDES, A.B.  
*Director of Admissions and Instructor  
in Mathematics and Navigation,  
Emeritus*  
Marblehead, 1938-1972

RICHARD VALENTINE HEALY, P.E.  
*Director of Physical Plant, Emeritus*  
Winchester, 1956-1972

ALLAN GEORGE GILLINGHAM, Ph.D.  
*Instructor in Latin and Greek,  
Emeritus*  
Berwick, Me. 1947-1974

ROBERT EDWARD MAYNARD, S.B.  
*Instructor in Mathematics, Emeritus*  
Andover, 1931-1974

WILLIAM RUSSELL BENNETT, JR., A.B.  
*Registrar, Emeritus*  
Kennebunk, Me. 1950-1974

JAMES RUTHVEN ADRIANCE, A.B.  
*Assistant to the Headmaster and  
Instructor in Religion, Emeritus*  
Chapel Hill, N.C. 1934-1975

NORWOOD PENROSE HALLOWELL, JR.  
A.B.  
*Instructor in English and Public  
Speaking, Emeritus*  
Andover, 1934-1975

FRANK FREDERICK DICLEMENTE, S.B.  
*Instructor in Physical Education,  
Emeritus*  
Andover, 1935-1975

HART DAY LEAVITT, A.B.  
*Instructor in English, Emeritus*  
Andover, 1936-1975

RICHARD SAWYER PIETERS, A.M.  
*Instructor in Mathematics, Emeritus*  
Dallas, Tex. 1938-1975

C. JANE SULLIVAN, Ed.M.  
*Director Abbot Alumnae Affairs,  
Emerita*  
North Andover, 1938-1975

CAROLYN ELIZABETH GOODWIN  
A.M.  
*Dean of the Academy, Instructor in  
Mathematics, Emerita*  
Andover, 1947-1976

ANNE LISE WITTEN, M.A.  
*Instructor in History and Social  
Sciences, Emerita*  
Montreal, Quebec, Canada, 1955-1976

WILLIAM ABBOT MUNROE, A.B.  
*Associate Treasurer, Emeritus*  
Andover, 1960-1976

WILLIAM JOHN BUEHNER, M.A.  
*Instructor in Latin, Emeritus*  
Andover, 1958-1977

HARPER FOLLANSBEE, Ed.M.  
*Instructor in Biology, Emeritus*  
Fitzwilliam, N.H. 1940-1977

STEPHEN WHITNEY, M.A.  
*Instructor in French, Emeritus*  
Rochester, N.H. 1936-1977



# STATISTICAL INFORMATION for 1977-78



In 1864, Shimeta Neesima left Japan as a stowaway on the clipper ship "Wild Rover" for America and sold his samurai sword for a Chinese New Testament. He was adopted by the shipowner, an Andover Trustee, became Joseph Hardy Neesima, graduated from Andover in 1867, later from Amherst and the Andover Theological Seminary, and became the first Japanese to be ordained a Congregationalist minister. Neesima returned to Japan to found The Doshisha, a great university in Kyoto dedicated to Japanese and Christian ideals. Doshisha recently celebrated its 100th anniversary.

## Geographical Distribution

Alabama	2
Alaska	1
Arizona	2
California	46
Colorado	8
Connecticut	84
Delaware	4
District of Columbia	10
Florida	15
Georgia	4
Illinois	35
Indiana	4
Iowa	4
Kansas	2
Kentucky	2
Louisiana	7
Maine	23
Maryland	7
Massachusetts	382
Michigan	16
Minnesota	4
Mississippi	2
Missouri	6
Nebraska	1
Nevada	1
New Hampshire	23
New Jersey	46
New Mexico	1
New York	168
North Carolina	8
Ohio	21
Oklahoma	1
Oregon	4
Pennsylvania	32
Rhode Island	9
South Carolina	2
South Dakota	1
Tennessee	2
Texas	13
Vermont	11
Virginia	14
Washington	1
West Virginia	1
Wisconsin	6
Wyoming	1
Afghanistan	1
Bahamas	1
Bangladesh	2
Belgium	2
Bermuda	1
Canada	7
Central African Republic	1
Chile	1
China	2
Dominican Republic	1
England	1
France	3

Gabon	1
Germany	5
Iran	1
Ivory Coast	1
Japan	1
Korea	3
Libya	1
Morocco	1
Norway	1
Puerto Rico	2
Saudi Arabia	2
Senegal	1
South Africa	1
Spain	2
Thailand	2
Turkey	3
Venezuela	2
Virgin Islands	2
West Indies	1

	Total	Boys	Girls
Seniors	374	240	134
Uppers	317	187	130
Lowers	262	170	92
Juniors	<u>120</u>	<u>73</u>	<u>47</u>
Totals	1073	670	403
Total Boarding Students			890
Total Day Students			<u>183</u>
			1073



## College Admissions

Admission to colleges is not based on a student's mere presence in a competitive academic community such as this one, but is based on how well the student has used this experience. All selective colleges exercise judgments relative to factors over and above academic ability in selecting a freshman class. While some of these factors relate to exceptional talents in one area or another, others are related to diversity in background and educational objectives.

The college admissions picture is entirely different and infinitely more complex now than it was in past decades. Competition for admission to selective colleges is rigorous, and Andover students are encouraged to apply across a range of choices to colleges with varying degrees of selectivity. The one constant in all of this should be a real desire to educate oneself. To this end the College Counseling Office works with the class as a whole and with each candidate to help each one draw up a list of colleges that makes sense.

Phillips Academy seniors go to college well prepared for the academic program and social experience that lies ahead.

The Class of 1977 applied to 147 different colleges and matriculated at 75 colleges and universities across the country.

## College Matriculations for the Class of 1977

COLLEGE	AD- MITTED	MATRI- CULATED	COLLEGE	AD- MITTED	MATRI- CULATED
Amherst	11	3	Univ. of		
Bates	3	1	Massachusetts	16	4
Boston College	7	2	MIT	5	2
Boston			Univ. of Miami	1	1
University	13	3	Univ. of		
Bowdoin	7	4	Michigan	18	5
Brandeis	8	1	Middlebury	10	3
Brown	42	17	Mount Holyoke	3	1
Univ. of			Univ. of New		
California			Hampshire	7	2
Berkeley	14	9	Univ. of North		
Santa Cruz	4	2	Carolina	9	2
Carleton	9	1	Northeastern	1	1
Carnegie Mellon	7	1	Northwestern	28	4
Case Western			Oberlin	19	6
Reserve	1	1	Occidental	2	1
University of			Ohio Wesleyan	7	2
Chicago	9	2	Univ. of		
Claremont			Pennsylvania	22	11
Men's	8	2	Univ. of		
Colby	7	3	Pittsburgh	1	1
Colgate	11	4	Pitzer	1	1
Colorado			Princeton	32	16
College	9	3	Reed	3	1
University of			Rensselaer		
Colorado	6	2	Polytechnic		
Columbia	28	9	Inst.	21	4
Connecticut			Univ. of		
College	12	2	Rochester	15	1
Univ. of			Skidmore	4	1
Connecticut	2	1	Stanford	23	11
Cornell	25	10	Syracuse	6	1
Dartmouth	19	14	Univ. of Texas	1	1
Denison	7	2	Trinity	16	3
Duke	12	6	Tufts	23	3
Emory	1	1	Tulane	7	2
Franklin &			Union	4	2
Marshall	6	1	U.S. Military		
Georgetown	20	4	Academy	1	1
George			Vanderbilt	6	1
Washington	2	1	Vassar	13	3
Harvard	41	34	Univ. of		
Hobart	6	1	Vermont	25	9
Holy Cross	2	1	Univ. of		
Johns Hopkins	28	8	Virginia	12	4
University of			Wellesley	8	4
Kansas	1	1	Wesleyan	32	11
Lafayette	5	1	Western Illinois		
Lake Forest	4	3	Univ.	1	1
University of			Univ. of		
Maine	4	1	Wisconsin	6	1
			Yale	39	21



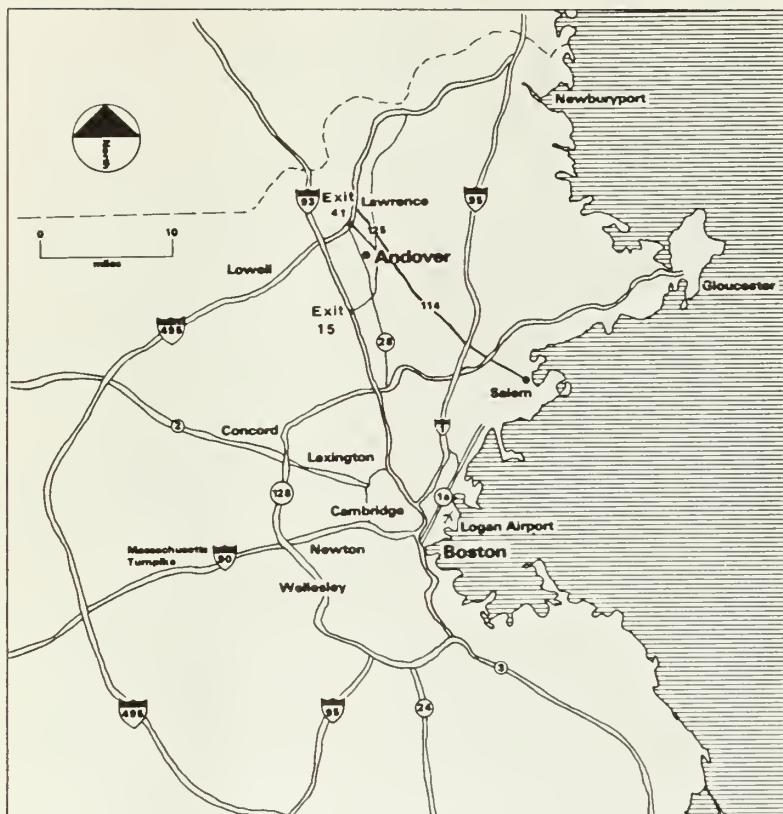


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- 9 Bailey House\*
- 10 Bancroft Hall\*
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- 12 Benner House (Art)
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- 16 Bulfinch Hall (English)
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- 42 Graves Hall (Music)
- 43 **Hardy House (Admissions Office)**
- 44 Isham Infirmary\*
- 45 Johnson Hall\*
- 46 Junior House\*

- 47 Memorial Bell Tower
- 48 Morse Hall (Mathematics)
- 49 Morton House\* (Alumnae)
- 50 Nathan Hale House\*
- 51 Newman House\*
- 52 Newton-Hinman House\*
- 53 Nineteen Twenty-four House
- 54 Oliver Wendell Holmes Library
- 55 Park House\*
- 56 Paul Revere Hall\*
- 57 Peabody House
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- 61 Phelps House\*
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- 63 R.S. Peabody Foundation and Archaeological Museum
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- 65 Samaritan House\*
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\*Dormitory



## TRAVELING TO ANDOVER

If traveling by car from Boston, take Route 93 north for about 19 miles. Take Exit 15, then turn right (east) on Route 125 for 2 miles. Turn right onto Route 28 and go north about 4 miles to the Andover campus. Turn right at the Bell Tower on the corner of Route 28 and Salem Street. The Admissions Office is the first building on the right.

If driving from Logan Airport, follow the signs to Boston via the Sumner Tunnel and follow Route 93 north signs.

From Route 495 north or south take the exit marked "Andover" and proceed south on Route 28 through the town of Andover. The Phillips Academy campus is approximately one mile south of the Andover center. Turn left on Salem Street, by the Bell Tower.

The Trombly Motor Coach Service runs buses to Andover from the Continental Trailways Bus Terminal, 10 Park Square, Boston. Buses run approximately every hour, 7:30 a.m.-11:00 p.m., Monday through Saturday, and from 10:30 a.m. to 11:00 p.m. on Sunday. Visitors should call the bus terminal in Boston, 482-6620, for up-to-date information.

### Inns and Motels in the Area

Andover Inn  
Chapel Avenue, Andover  
Telephone 617-475-5903

Sheraton Rolling Green Motor Inn  
Lowell Street, Andover  
Telephone 617-475-5400

Merrimack Valley Motor Inn  
Route 125, Chickering Road  
North Andover  
Telephone 617-688-1851



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*The Pot Pourri*

# ANDOVER COURSE OF STUDY 1978-1979

PHILLIPS ACADEMY  
1778 OUR 200th YEAR 1978





# Course of Study

## 1978-1979

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## Course of Study

The curriculum of Phillips Academy comprises a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Placement in the year level of a subject may be independent of a student's grade in school; through advanced placement at entrance or accelerated courses, many students fulfill requirements ahead of the normal year, thereby gaining increased opportunity for college-level or other elective courses. Instruction is given in all subjects required for entrance to higher institutions, whether liberal arts or technical.

Classroom groups are small enough to permit individual attention, and students are placed in sections fitted to their skill level. Accelerated sequences and advanced courses offer particularly able and well-prepared students opportunity to progress at a rate commensurate with their ability and ambition. Most departments offer courses beyond the level of preparation for college.

For full membership in a given class, students should have credit for the work of the lower classes or its equivalent. However, students are rated as members of a given class if their deficiencies for full membership in it do not exceed a certain number of trimester courses.

Every student is assigned to an Academic Advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements, and the student's particular interests. Students should familiarize themselves with the Academy's basic requirements as well as with the possibilities of its flexible academic program. Actual course registration is done at Arena Day, prior to the start of each trimester.

Members of the Upper Middle and Senior classes should take care to familiarize themselves with the entrance requirements of the colleges they may wish to enter.

### **The Trimester Plan**

The academic year is separated into three trimesters. There are two types of weekly class schedules: one during which classes meet only Monday through Friday, and the other during which classes also



meet on Saturday morning. There are roughly equal numbers of these five and six-day weeks within a given trimester. Another aspect of the varied curriculum and schedule is that some courses are regularly scheduled to meet four times per week, while others (especially beginning languages and mathematics) meet five. All departments offer year-long courses as well as those which are term-contained (completed in one trimester). The diploma requirements are stated in terms of full-year courses or trimester courses, depending on the academic area involved.

### **Special Courses in Foreign Languages**

Special courses covering the work of two years in one are open to qualified Seniors in German, Greek, Italian, Latin, Russian, and Spanish. These 10-20 courses are designed primarily for students of proven linguistic ability wishing to begin a second or third language in their Senior year, and therefore are not recommended for students of limited language ability. Entering Seniors with no previous foreign language experience must pass a 10-20 course as a diploma requirement.

### **Accelerated Sequences and Advanced Placement**

The Andover curriculum offers accelerated sequences in most departments. It provides special programs in Latin, Greek, and the modern foreign languages, designed to cover four years' work in three—or five years' work in four. The programs are open, on invitation of the departments, to especially able and ambitious students.

A large number of Phillips Academy students take College Board Advanced Placement Tests in May to establish advanced placement in college courses or credit toward the college degree.

Advanced Placement Examinations are offered in: American History, Art History, Biology, Chemistry, English, European History, French, German, Latin, Mathematics, Music, Physics, Spanish, and Studio Art (portfolio).

### **Independent Projects**

With the approval of the Dean of the Academy and in accordance with requirements established by the Faculty, a student may substitute independent work for some portion of the normal course load. An independent project may replace a given course for up to three trimesters of a student's stay at the Academy, or may replace all courses during a given trimester. In either case, the work is done under the supervision of a member of the Faculty.

### Off-Campus Programs and Projects

The school offers several off-campus residential programs. The *Washington Intern Program*, in which Andover joins with Exeter, allows a group of Upper Middlers to spend the Spring Term living together in Washington and working in the offices of U.S. Senators and Congressmen. (See *History* 35.)

Students enrolled in Spanish at the third-level or higher may elect a residential Winter Term of study in Mexico. (See *Spanish* 35.)

In addition to school-sponsored programs, the trimester plan provides an opportunity for individual Seniors to arrange off-campus projects related to their special interests. Some Seniors have worked as interns with officials in local government and members of the Massachusetts legislature. Others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative in the investigation of opportunities and careful planning of a course of study that will meet diploma requirements yet free a block of time during the appropriate term.

### School Year Abroad

Students may elect to spend their Upper Middle or Senior Year studying in France or Spain with *School Year Abroad*, originated as an off-campus program by Andover, later joined as a sponsor by Exeter and St. Paul's. Students live with host families while pursuing a course of study under the supervision of teachers from the three original sponsoring schools. Although *School Year Abroad* is now an independent program, it provides students with courses that earn full academic credit at Andover as well as the experience of immersion in a foreign culture. Students wishing to participate should consult their Academic Advisor and the *School Year Abroad* office (located in Samuel Phillips Hall on the Phillips Academy campus) for guidance in the selection of courses for the years prior to and following the year abroad.

### Summer Session

The *Andover Summer Session* is a six-week academic enrichment program for boys and girls of high school age. Students who wish to receive Phillips Academy credit for courses taken at the *Andover Summer Session* must receive prior approval from the chairman of the department involved.

### Short Term Institutes

The *Andover Short Term Institutes* provide an opportunity for students and teachers from secondary day schools to study one sub-

ject intensively during several weeks at Andover. Diploma candidates at Phillips Academy may apply for *Short Term Institutes*, provided that they are able to make individual arrangements for credit through the Dean of the Academy.

### **Complementary Schools Project**

The *Complementary Schools Project* sponsors a wide variety of off-campus community internships available to Phillips Academy students in good standing. Students who wish to participate in a community internship in another school should apply to the Director of the CSP, after having secured credit arrangements with the Dean of the Academy and approval from parents, Cluster Dean, and House Counselor.

## **Planning a Program of Studies at Andover**

The following is designed to help Andover students and their parents to understand both the theory and the practice of the Andover curriculum, and in particular to show the major decisions, and their consequences, which face the students and their Academic Advisors at each stage of the four-year program.

### **Workload**

All new students are advised to carry only a normal program of five courses each term in the Junior, Lower Middle, and Upper Middle years. The requirement for the Senior year is four courses or the equivalent of the fourth course — that is, independent work equivalent to a course. Upper Middlers and Seniors may elect to adjust their workload by carrying four courses or five courses in any trimester during their last two years as long as the total for the two years comes to twenty-seven trimester units.

### **Academic Advising**

Each student has an Academic Advisor; this member of the Faculty is responsible for counseling the student in the planning of his or her course of study at Andover. The Advisor meets with the stu-

dent during the Orientation period prior to the opening of school in September to review the course selections which the student has made during the previous Summer or Spring. The Advisor must approve the selections for the Fall Trimester at this time, and those for the Winter and Spring Trimesters, respectively, during conferences held later in the year.

Within the diploma requirements, programs of study are determined by the student's long-range needs and aspirations — insofar as these can be identified. These needs may include college and career plans, strengths and weaknesses as revealed by previous performance and aptitude tests, and character and personal development.

In addition to the Academic Advisor, the House Counselor or Day Student Counselor must also approve the student's course selection for each trimester. From time to time during the academic year, the Counselor will report to parents concerning the student's growth and progress. Late each spring students in the three lower classes and their respective Academic Advisors will prepare a selection of courses for the coming year; a copy of this selection will be mailed to parents in June.

Although the student is ultimately responsible for the selection of his courses, the Academic Advisor will welcome any information and suggestions that parents may wish to offer.

### **Arena Day**

Students register for their courses and sections in an arena setting before each term. Following meetings with their Academic Advisors, each student makes certain that the desired courses have sections scheduled that permit a conflict-free, workable daily program. Entrance into the arena is by classes and in numerical order according to a randomly chosen, pre-assigned number. Students are advised to have alternate selections in mind in the event that some of the desired sections are full; enrollment is on a first-come, first-served basis.

### **Diploma Requirements**

The basic diploma requirements are the satisfactory completion of a four-year secondary school program, of which at least three trimesters must be at Andover, and the student's being in good standing (not on Probation or under Suspension) at the time of graduation. A student who has been dismissed is ineligible for a diploma unless readmitted.

A student's program normally includes nine trimester units of a foreign language, eight of mathematics, a full-year course in United



States History plus an additional trimester course in history taken at the Upper Middle or Senior level, a full-year course in a laboratory science, one trimester of art (usually *Visual Studies-Art 10*), one trimester of music (usually *The Nature of Music-Music 20*), and six trimesters of English, these to include a trimester course of competence in writing and reading and a five-trimester sequence of general literature. Certain diploma requirements vary with the class level at which the student enters Phillips Academy. Entering Juniors and Lower Middlers must take a trimester course in physical education in addition to required athletics. Entering Upper Middlers need take only one trimester of either studio art or music at the Academy. Entering Seniors are not required to take either art or music. Some modifications of the language requirement are made for entering Upper Middlers and Seniors. Entering Seniors with no previous foreign language experience must pass a 10-20 course in a foreign language. A Senior must *pass* a minimum of twelve graded trimester courses during the Senior year. Seniors must pass all courses taken during their Spring Trimester. Independent Projects are counted as graded courses.

Credits (trimester units) required for diploma are:

<i>For Entering Juniors</i>	54
<i>For Entering Lowers</i>	51
<i>For Entering Uppers</i>	48
<i>For Entering Seniors</i>	48

### Newly Admitted Students

Students entering for their first year are sent placement material, including some forms for present teachers to complete and a self-administered diagnostic test in elementary algebra. These items are used by the Academy to aid in proper placement or recommendation of course levels. New students are also asked to complete to the best of their ability a Program of Studies form, indicating the courses that they wish to take during the coming year. Although the placement material may alter somewhat a student's preliminary selections, it is helpful, for planning purposes, to know the levels that each student thinks he is ready to enter.

### The Main Choices at Each Stage of a Four-Year Program

While a student's program of studies is adapted each year to his changing situation, *the future consequences* of each course should be noted, for certain choices in one year open the way to later options and may close the door to others.

## JUNIOR YEAR

Each trimester a Junior must take five courses, only one of which may be a Pass/Fail course. Students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring.

Most Juniors elect *English 10*.

In selecting courses, students are reminded to check the diploma requirements. A Junior's program should resemble the following outline:

1. Math—begin sequence (usually *Mathematics 10*);
  2. Foreign Language—begin sequence (usually a year-long course at the 10-level);
  3. Elective
  4. Elective
  5. Elective
- |  |
|--|
| Art, English, Social Science, History, another |
| Math, another Language, Music, Performing      |
| Arts, Physical Education, Religion and         |
| Philosophy, Science, Interdisciplinary.        |

## LOWER MIDDLE YEAR

Each trimester a Lower Middler must take five courses, only one of which may be a Pass/Fail course. New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. A few students take the CEEB Achievement Tests during their Lower Middle year. In selecting courses, students are reminded to check the diploma requirements. A Lower's program should resemble the following outline:

### *New Students*

1. Math—(usually *Mathematics 19* or *Mathematics 20*);
  2. Foreign Language—enter the sequence by placement of the department;
  3. English—begin sequence (*Comp., Lit A (T2)* );
  4. Elective
  5. Elective
- |   |
|---|
| Art, Classics, Social Science, History, another |
| Math, another Language, Music, Performing       |
| Arts, Physical Education, Religion and          |
| Philosophy, Science, Interdisciplinary.         |

### *Returning Students*

1. Math—continue the sequence (usually *Mathematics 20 (T2)*, 32);
  2. Foreign Language—continue the sequence;
  3. English—begin sequence (*Comp., Lit A (T2)* );
  4. Elective
  5. Elective
- |   |
|---|
| Art, Classics, Social Science, History, another |
| Math, another Language, Music, Performing       |
| Arts, Religion and Philosophy, Science,         |
| Interdisciplinary.                              |

**N.B.**

Students wishing to take *Spanish 35 (Term in Mexico)* or to participate in the *Washington Intern Program* should make sure that they will have no year-long courses during their Upper Middle year. Students wishing to participate in the *School Year Abroad Program* during their Upper Middle year should discuss these plans with their Academic Advisor and seek guidance for the selection of courses for the Lower Middle Year.

**UPPER MIDDLE YEAR**

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 units in blocks of four or five courses per trimester. A Pass/Fail course may be elected as a fifth course only.

New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. Many students take the CEEB Preliminary Scholastic Aptitude Tests in the Fall, all take the CEEB Scholastic Aptitude Tests in the Winter, and many take the CEEB Achievement Tests in the Spring of their Upper Middle year. Some also take the CEEB Advanced Placement Tests in the Spring of their Upper Middle Year. As a matter of general policy Academic Advisors encourage "depth" in the selection of courses for the Upper Middle Year. Most students satisfy their United States History requirement during their Upper Middle Year. In selecting courses students are reminded to check the diploma requirements. An Upper's program should resemble the following outline:

*New Students*

1. Math—(usually *Mathematics 30 or 31*);
  2. Foreign Language—enter the sequence by placement of the department;
  3. English—begin sequence (usually *Comp., Lit A (T2)*);
  4. Elective
  5. Elective
- |   |   |
|---|---|
| [ | Archaeology, Art, Classics, another English,<br>Social Science, History, another Math, another<br>Language, Music, Performing Arts, Religion<br>and Philosophy, Science, Interdisciplinary. |
|---|---|

*Returning Students*

1. Math—continue the sequence (usually *Mathematics 35 (T2)*);
2. Foreign Language—continue the sequence;
3. English—continue the sequence (usually *Lit B (T2), Lit C*);
4. History—usually *History 35—The United States*;

5. Elective [ Archaeology, Art, Classics, another English,  
Social Science, History, another Math,  
another Language, Music, Performing Arts,  
Religion and Philosophy, Science,  
Interdisciplinary. ]

**N.B.**

Students wishing to take an *Off-Campus Independent Project* for a trimester of their Senior Year must have no year-long courses during their Senior Year.

**SENIOR YEAR**

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 trimester units in blocks of four or five courses per trimester. A Pass/Fail course may be elected only as a fifth course; however, an Independent Project, though marked on a Pass/Fail basis, is counted as a graded course for purposes of the above requirement.

A Senior must *pass* a minimum of twelve graded trimester courses during the Senior Year. Seniors must pass all courses taken during their Spring Trimester. Independent Projects are counted as graded courses. Many Seniors retake the CEEB Scholastic Aptitude Tests in December and the CEEB Achievement Tests in January, and the CEEB Advanced Placement Tests in May. In selecting courses students are reminded to check the diploma requirements. A Senior's program should resemble the following outline:

*New Students*

1. Math—enter the sequence by placement of the department, if the requirement is not yet satisfied (usually *Mathematics 40*);
2. Foreign Language—enter the sequence by placement of the department if the requirement is not yet satisfied;
3. English—begin sequence (*Comp., Lit A (T2)*);
4. Elective [ Archaeology, Art, Classics, another English,
5. Elective [ Social Science, History, another Math,  
another Language, a 10-20 Language, Music,  
Performing Arts, Religion and Philosophy,  
Science, Interdisciplinary. ]

*Returning Students*

Usually most diploma requirements are satisfied. Careful selection of electives for continued depth in the student's chosen areas is encouraged.



### Transferring and Dropping Courses

To transfer or drop a course, a student must obtain an official transfer slip from his or her Academic Advisor. This slip is then taken *as soon as possible* to the Scheduling Officer in George Washington Hall. Transfers into term-contained courses must take place during the first six calendar class days of the term. No course may be dropped during the last two weeks of class meetings of the course. Students wishing to drop year-long or T2 courses prior to the normal end of the course may do so only by gaining the approval of a group of five, consisting of: the Department Chairman, the Dean of the Academy, the student's House Counselor, Academic Advisor, and Instructor who act as a review board. Credit is granted at the discretion of the Department Chairman and only if the student is passing the course at the time it is dropped and only for that portion completed. Year-long and T2 courses are considered as long-term commitments.

### Attendance

Students are expected to attend all academic classes.

Instructors, if approached in advance, are permitted (but not required) to excuse students from a class meeting if the absence from that meeting will not add to weekend time. Only Cluster Deans may give permission to extend weekend time, and they may do so without consulting Instructors.

### Failed Courses

In most cases, continuing students may attempt to receive credit for a failed course by taking a make-up examination. Spring Term Senior Failures may be made up only following Commencement.

### College Entrance Examination Board Test Dates

Tests will be held on campus in 1978-79 as follows:

October 28	PSAT/NMSQT ( <i>Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test</i> )
November 4	SAT/ACH
December 2	SAT/ACH
January 27	SAT/ACH
March 31	SAT <i>only</i>
May 5	SAT/ACH
May 14-18	AP ( <i>Advanced Placement Examinations</i> )
June 2	SAT/ACH

# Key to Course Designation

A course number ending in "0" denotes a year-long course (Example: *Math 10-0*). A number ending "123" indicates that the course is term-contained, but sequential, and may be taken for one, two, or three terms (Example: *Art 21-123*). A number ending in a single digit "1," "2," or "3" indicates a course that is term-contained, but one that may be taken only once (Example: *History 60-2*). The designations 1, 2, and 3 indicate the trimesters during which the course is offered: 1 = Fall; 2 = Winter; 3 = Spring. Some courses require a two-term commitment; they are indicated by a "(T2)" following the course name (Example: *Physics 52-12 Advanced Physics (T2)* ). Check carefully each course description for any other limitations: Prerequisites, permission of instructor or department chairman required, etc.

Immediately below each course number is a 4-digit number in parentheses. This identification number (often referred to as the "computer number") is used for data processing files and is required when a student registers for courses. The final digit of the computer number has roughly the same meaning as the last digit of the course number:

<i>Final Digit:</i>	<i>Indicates:</i>
0	Year-long course
1	Course offered in Fall Trimester
2	Course offered in Winter Trimester
3	Course offered in Spring Trimester
4	T2 course offered in Fall and Winter
5	T2 course offered in Winter and Spring

## Course Descriptions

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers a term-contained course as an elective.

- 25—1 Archaeology  
(2251) Four prepared classes. Open to Upper Middlers and Seniors. Limit 15 students. The course explores the methods archaeologists use to reconstruct prehistoric societies and to test general statements concerning how and why these societies came to be the way they were. In doing this, several major transformations in human society are considered, beginning with the society of the earliest men, and ending with the first civilizations. Lecture and class discussion are supplemented by visual aids and work with archaeological specimens. A brief excavation may be conducted locally.

### Art

The diploma requirement in Art is as follows: entering Juniors and Lowers must take a trimester course in a Studio Art; an entering Upper must take a trimester course in a Studio Art or Music at the Academy; neither a Pass/Fail course nor an Art History Course is accepted as fulfilling the requirement. The basic course, *Visual Studies*, covers a broad range of material, is open to students of all abilities and experience, and is a prerequisite to almost all elective courses in Art. Exemption from this prerequisite is granted only on the basis of a portfolio of work judged satisfactory by the Chairman of the Department in collaboration with the teacher of the course which the student desires to enter. An acceptable portfolio should contain examples of two-dimensional work, three-dimensional work (slides or photographs are acceptable), and photography.

The College Entrance Examination Board offers students the opportunity to gain Advanced Placement in Studio Art in many colleges and Art Schools, thus enabling a student to by-pass basic design courses. Students must submit a portfolio of slides and original work to Princeton in May. Students interested in Advanced Placement should enroll in *Art 315-1* and two subsequent terms in Art.

Students should expect to help pay for art materials.

## Introductory Studio Courses

### 10—1 Visual Studies

- (0101) Five prepared class periods. In its emphasis on observation, interpretation, and organization, the basic course is designed to supply an understanding of contemporary surroundings. Along with discussion of design problems, the student receives experience in photography, drawing, two-dimensional design, and three-dimensional construction. Previous experience in art is not required.

### 11—0 Visual Studies for Juniors

- (0110) Four prepared periods. A year-long course which will cover drawing, color, photography, and three-dimensional design. The spring term will entail more sustained projects in any one of the four areas. The course will fulfill the diploma requirement in Art and will serve as the equivalent of *Art 10* as a prerequisite for other Art courses. (Mr. Shertzer)

### 12—1 Introductory Photography

- (0121) Prerequisite: *Visual Studies (Art 10)*. The course covers fundamentals of black and white photography. Technique and control are emphasized for clarity, but content is the first consideration along with the development of a personal direction in the medium. This course is a prerequisite for all other still photography courses. Students are expected to provide their own cameras.

### 13—2 Art Studio

- (0132) Pass/Fail. A Studio open to all classes which strives for flexibility to suit the varied art interests of the students. There is either an introduction for some people to drawing, painting, and printing, or an opportunity for those more experienced to develop the abilities and ideas they already have achieved. There is a balance between structured classes and free creative periods. *Visual Studies (Art 10)* is preferred but not required as a prerequisite. Limit of 12. (Mrs. Powell)

### 14—1 Introductory Ceramics

- (0141) Pass/Fail. Four classes per week plus an evening studio. Limit of ten students. Basic techniques of hand-building, wheel-throwing, and glazing. Emphasis on the sculptural as well as the functional possibilities of clay. At least one raku firing each term, or a similar special project. (Mrs. Bensley)

## Intermediate Studio Courses

Unless otherwise noted, the intermediate courses consist of four prepared classes each week. *Visual Studies (Art 10)* is a prerequisite for all intermediate courses.

### 20—123 Drawing

- (0201) Prerequisite: *Visual Studies (Art 10)*. A course designed to develop observation and drawing skills in several media, based on the assumption that drawing is an end in itself as well as a skill basic to other media.



- 1—123 Animation**  
 (0211) Prerequisite: *Visual Studies (Art 10)*. An introduction to the art of illusion  
 (0212) of motion through shooting still images frame by frame with 16mm sound  
 (0213) motion picture film, with emphasis on the relationship to the sound track  
 in structuring the finished product. Given in collaboration with the Music  
 Department, the course may interest either the art student who wishes to  
 explore the visual possibilities of the medium or the music student who  
 wishes to find a vehicle for an original composition. (Mr. Bensley and Mr.  
 Irwin)
- 3—123 Two-Dimensional Design**  
 (0231) Prerequisite: *Visual Studies (Art 10)*. The course deals with one's ability to  
 (0232) manipulate those elements most associated with the picture plane: color,  
 (0233) line, shape, texture, and composition of flat materials. Work includes:  
 1) color—free studies and collages dealing with the structural and ex-  
 pressive nature of color; 2) drawing—exercises using pencil, pen, and  
 brush, figure and landscape drawing; and 3) figure-ground—expanding the  
 structural and illusionary aspects of figure-ground as an end in itself and  
 as a basis for graphic and advertising design. (Mr. Shertzer)
- 24—1 Three-Dimensional Design**  
 (0241) Prerequisite: *Visual Studies (Art 10)*. Woodworking, welding, furniture  
 24—2 design, toy-making, sculpture—all these activities share principles of design  
 (0242) which can be more broadly applied to architecture, city and regional plan-  
 24—3 ning. The course introduces the wood and metal shops via a series of as-  
 (0243) signed projects, each of which demonstrates a basic set of design princi-  
 ples. (Mr. Lloyd)
- 5—123 Intermediate Ceramics**  
 (0251) Prerequisite: *Visual Studies (Art 10)*. *Introductory Ceramics (Art 11)* pre-  
 (0252) ferred but not required. The course stresses combining techniques and the  
 (0253) development of basic skills toward new forms. Participation in glaze prep-  
 aration and firings. (Mrs. Bensley)
- 6—123 Intermediate Photography**  
 (0261) Prerequisite: *Visual Studies (Art 10)* and *Introductory Photography (Art*  
 (0262) *12)*. Two class hours plus four hours of laboratory work per week, offer-  
 (0263) ing students the chance to pursue a project of their own choice. The course  
 should be taken with an instructor different from the one the student  
 studied with in *Introductory Photography (Art 12)* or previous terms of  
*Art 26*.

#### anced Studio Courses

*Visual Studies (Art 10)* is a prerequisite for all advanced courses.

- 0—123 Graphics and Photography**  
 (0701) Prerequisites: *Visual Studies (Art 10)* and *Introductory Photography (Art*  
 (0702) *12)*. Applying photography to graphic arts, particularly through photo-silk-  
 (0703) screen. Individual experimentation is emphasized in an attempt to carry the  
 expressive force of photography beyond darkroom techniques. (Mr. Mc-  
 Murray)

- 301—123 Studio Photography**  
(0711) Prerequisite: *Visual Studies (Art 10)* and *Introductory Photography (Art*  
(0712) *12)*. Limited to ten students. Portraiture and Fashion: controlled lighting  
(0713) with photo flood and studio strobes. Large format cameras (2¼ and 4×5)  
are supplied for this course. Meets Wednesdays from 1:30 to 5:30 for  
shootings; subjects may be professional models from Boston or subjects of  
the student's choice. (Mr. Bensley)
- 302—123 Painting**  
(0721) Prerequisite: *Visual Studies (Art 10)*. An introduction to the basic elements  
(0722) and techniques of paintings in oils and acrylics. Specific problems are as-  
(0723) signed to study the fundamentals of color, form, composition and space in  
painting, as well as to encourage the student's individual expression. Class  
critiques and discussions, slides, reproductions, films and occasional field  
trips are also part of the course. Previous experience is helpful but not  
necessary; students are encouraged to sign up for the full year if possible.  
(Mrs. Rabinowitz)
- 303—23 Filmmaking**  
(0732) Prerequisite: *Visual Studies (Art 10)*. This course combines viewing theat-  
(0733) rical, documentary, and art films for discussion and criticism with the pro-  
duction of individual or group student films in silent super-8. Course work  
will include developing film ideas, script-writing, shooting, cutting, edit-  
ing, and class critiques. Editing and projection equipment will be provided.  
A small number of cameras is available for day-loan but students are en-  
couraged to acquire their own cameras for greater control and freedom.  
(Not offered in 1978-79)
- 304—123 Advanced Ceramics**  
(0741) Prerequisite: *Visual Studies (Art 10)*. For those who are seriously inter-  
(0742) ested in the total operation from design to execution. Hand-building,  
(0743) wheel-throwing, glazemaking (and some chemical analysis), responsibility  
for loading and firing electric, gas, raku, and salt kilns. Assigned reading  
and occasional field trips. (Mrs. Bensley)
- 305—123 Print Shop**  
(0751) Prerequisite: *Visual Studies (Art 10)*. Relief Painting: designing, cutting,  
(0752) and printing linoleum and woodblocks in editions. Silkscreen: making  
(0753) stencils for the screen, experimenting with color, and printing imaginative  
compositions as well as message-oriented posters. Intaglio: starting with  
drypoint and learning the processes of etching and printing in a workshop  
atmosphere. (Mrs. Powell)
- 306—123 Advanced Photography**  
(0761) Prerequisite: *Visual Studies (Art 10)* and *Introductory Photography (Art*  
(0762) *12)*. Students must enroll for the Fall Term and at least one other term.  
(0763) The course is designed to provide an opportunity to work intensively in  
photography for an entire year. It includes work on technique, photogra-  
phic seeing, photographic history, and individual projects. After the fall  
term, the student may elect either large-format camera work, or specialized  
35mm projects.

- 08—123 Sculpture**  
 (0781) Prerequisite: *Visual Studies (Art 10)*. Offers an opportunity to work in practically every material available to the sculptor today, including wood, stone, metal, plastics, plaster, and others. It is therefore possible for students to develop into sculpture concepts discovered in *Visual Studies (Art 10)* or *Three-Dimensional Design (Art 24)* as well as ideas drawn from their own experience. Some outstanding work of recent classes include the "avocado" by Seymour House '73, a thirty-foot welded construction which is now a permanent addition to the Addison Gallery, a standing steel figure by Jamie Morgan '73, which was on display in the Headmaster's Office, and others. Individual criticism is stressed. (Mr. Shertzer)
- 09—123 Kinetics**  
 (0791) Prerequisite: *Visual Studies (Art 10)*. *Three-Dimensional Design (Art 24)* is recommended. A search for the aesthetics of movement. Individual inventiveness is stressed as students pursue projects directed toward devices that produce implied or real motion. Self-perpetuated problem-solving situations become one of the prime values and objectives of the course. (Mr. McMurray)
- 10—123 Architecture**  
 (0801) Prerequisite: *Visual Studies (Art 10)*. For Uppers and Seniors. A design course based on previous work in *Visual Studies (Art 10)* and/or *Three-Dimensional Design (Art 24)* which relates the basic elements of surface and volume to the design of shelter, the efficient combination of human functions, and the organization of construction. At least one term involves large-scale projects constructed in the woodworking shop. Examples from recent years include the Search and Rescue climbing tower near Rabbit Pond and the playground at a local elementary school. (Mr. Lloyd)
- 311—3 Contemporary Communications**  
 (0813) Four prepared class periods. The course examines some of the bases of communication between and among people. Material includes fiction, non-fiction, poetry, drama, motion pictures, and the visual arts. Prerequisites: Successful completion of a course in art, music, or theatre. At least one term the course engages in a large group project aimed at public presentation. (Mr. Owen and Mr. Lloyd)
- 314—3 Calligraphy: The Art of Lettering by Hand**  
 (0843) Prerequisite: *Visual Studies (Art 10)*. A course designed to develop basic techniques of fine hand lettering beginning with Roman capitals and tracing the historical developments of letter construction, integrating form and function. Practical applications can range from simple matter quotations to illuminated manuscript work. (Mrs. Quattlebaum)
- 315—1 Advanced Placement in Studio Art**  
 (0851) Prerequisite: *Visual Studies (Art 10)*. For Seniors, or for Uppers by permission of the Instructor. Four prepared class periods, fall term only, to help students with special interest in art or design prepare a portfolio for Advanced Placement. The course will concentrate on preparing work for the "breadth" category of the AP, but will also entail planning courses or projects to fulfill the sections entitled "quality" and "depth." A student en-

rolled in this course should plan to take at least one art course or project in Winter and Spring terms. (Mr. Lloyd)

**History 54—1 Art and Architecture in Antiquity and the Middle Ages**

(2541) Four prepared class periods. For Uppers and Seniors. This course is an introduction to Western art from Archaic Greece to fourteenth century Italy. Focusing primarily on architecture and sculpture, it covers major trends in Greek, Roman, Byzantine, Romanesque, and Gothic art. It stresses the basic vocabulary, fundamental questions, and analytical methods of the art historian. (Mr. Sewall)  
(Not offered in 1978-79.)

**History 55—2 Art and Architecture in the Renaissance and Baroque**

(2552) Four prepared class periods. For Uppers and Seniors. It is strongly suggested that students planning to take *History 55* have completed *History 54*. This course covers European art from the Early Renaissance in Florence and Flanders to the Neoclassical movement of the late eighteenth century. (Mr. Sewall)  
(Not offered in 1978-79.)

**History 56—3 Art and Architecture Since the French Revolution**

(2553) Four prepared class periods. For Uppers and Seniors. It is strongly suggested that students planning to take *History 56* have completed *History 55*. This course covers the diverse movements of "modern art" in the nineteenth and twentieth century. It includes occasional visits to museums in Boston and New York. (Mr. Sewall)  
(Not offered in 1978-79.)

## The Classics

The foreign language diploma requirement is competence at the level of the third year of a modern or ancient language. Such competence in Latin or Greek is usually established by successfully completing the ninth trimester. Able students may fulfill the requirement at the end of the eighth, or even the seventh trimester, by passing a special examination set by the department.

The Department of Classics offers students through the study of Greek and Latin languages a direct entry into Greek literature, which is still unsurpassed in quality, and into Latin, which, as the universal language of church, court, and scholars throughout the formative years of modern Europe, can rightly be termed the moth-



er tongue of Western Civilization, and the clue to its meaning.

Latin has traditionally been the first language of the two to be studied in school. Greek, as a first language, however, is no more difficult than Latin. The Greek alphabet is easily mastered in the first two class meetings and students quickly discover that the language has poetic and expressive quality and content which stimulate imagination and understanding of man's political and intellectual development.

Survey courses, with readings in English only, are also offered on an elective basis to give the student a broad-scope introduction to Classical civilization, including history, literature, mythology, epic, and etymology.

## Greek Courses

### 10—0 Greek

(5010) Five prepared class periods. The course prepares students for the reading of Greek literature. The necessary training is given in basic vocabulary, forms, and syntax. Frequent practice together in class with other students and the teacher in sight reading of characteristic passages of Greek literature provides an introduction into the bases of Greek civilization and culture. Chase and Phillips' *A New Introduction to Greek* (Harvard University Press) and Crosby and Schaeffer's *Introduction to Greek* (Allyn and Bacon) are used.

### 10-20—0 Greek

(5020) Five prepared class periods. The course is open to Seniors and Upper Middlers. It covers in one year the essential material of *Greek 10* and *Greek 20*. The texts are Chase and Phillips' *A New Introduction to Greek* (Harvard University Press) and Xenophon's *Anabasis*, ed. Mather and Hewitt (University of Oklahoma Press).

### 13—1 Introduction to Greek

(5031) Four prepared class periods. The course is for students whose curiosity for the Greek language and civilization has been aroused by their studies in Latin or the modern languages (including English). It provides an excellent introduction into the intricacies and subtleties of a highly inflected language. The student is treated to an inside preview of a body of literature which has been the groundwork for the Western World's literature of today. It is a term-contained course, but students wishing to continue with Greek will have the opportunity to do so.

### 20—0 Greek

(5040) Five prepared class periods. The second year is occupied with selections from Xenophon's works and with some of the philosophy of Plato. Prose composition in Attic Greek is studied, the grammar is reviewed, and there is work in sight translation. The texts are Xenophon's *Anabasis*, ed. Mather and Hewitt (University of Oklahoma Press) and selections from Plato's dialogues in *The Martyrdom of Socrates*, ed. Doherty (Oxford).

30—0 Greek

- (5050) Four prepared class periods. Selected books of the *Iliad* and the *Odyssey* and a play of Euripides examine the nature of tragedy, heroism, and self-discovery. The texts are Benner's *Selections from Homer's Iliad* (Naiburg), Homer's *Odyssey I-XII*, ed. Stanford (St. Martin's Press), and Euripides' *Hecuba*, ed. Hadley (Cambridge).

40—123 Greek

- (5061) Four prepared class periods. In the Fall Term ancient concepts of justice and morality are examined through the works of Herodotus and Thucydides. Human tragedy is explored in a play of Sophocles or Euripides in the Winter Term. The Spring Term is devoted to the study of emotion and self-expression in the Greek lyric poets. The texts are Chase and Phillips' *A New Greek Reader* (Harvard University Press), Euripides' *Medea*, ed. Elliott (Oxford), Sophocles' *Oedipus Tyrannus*, ed. Jebb (Cambridge), and Campbell's *Greek Lyric Poetry* (St. Martin's Press).

## Latin Courses

10—0 Latin

- (5110) Five prepared class periods. The purpose of the course is to prepare students for general reading in Latin. To that end, thorough training is given in the basic vocabulary, forms and syntax of the language (including all uses of participles, infinitives, and subjunctives) along with practice in sight reading. The student is introduced to the general outline of Roman history and the study of Latin derivatives. The text is Chase's *A New Introduction to Latin*.

10-20—0 Latin

- (5120) Five prepared class periods. For Upper Middlers and Seniors. A year-long accelerated introductory course covering two years in one. Those who pass the course successfully are given credit for two years of Latin. The course is reserved for students who give evidence of high ability. Texts are the same as those for *Latin 10* and *Latin 20*.

13—1 Introduction to Latin

- (5141) Four prepared class periods. The course is for students seeking an introduction to the Latin language, or those whose studies in other languages (including English) have aroused their curiosity about grammar, syntax, and vocabulary. It offers special profit and fascination to students of French, Spanish, and Italian, since it illuminates much of what they already know by acquainting them with the mother language. For students who plan some day to study Russian or German it serves as an introduction to the workings of highly inflected languages. It is a term-contained course, but students wishing to continue with Latin will have the opportunity to do so.

20—0 Latin

- (5150) Five prepared class periods. During the first term, the course gives a thorough review of the fundamentals of Latin grammar and begins the reading of Caesar. Caesar's account of his campaigns provides for the student insight into the problems of political ambition and international intrigue.

These ideas are developed and compared in additional readings from Nepos and Livy. There is practice in sight translation and prose composition. The texts are Buehner's *An Intermediate Latin Reader* (Independent School Press) and Colby's *Review Latin Grammar* (Independent School Press).

21—0 Latin

(5160) Five prepared class periods. The course follows the same outline as *Latin 20*, but more slowly, to allow for students whose first-year Latin course may have been less complete than *Latin 10*.

30—0 Latin

(5170) Four prepared class periods. Each term is the prerequisite for the term which follows it. Through the writings of Cicero and a variety of other authors, the course teaches students to read Latin prose with an increasing ease. It presents a picture of Cicero's life and times and compares the political unrest and maneuvering of his time with that of our own. The literary importance of Cicero as the creator of a prose style which influenced the literature of Europe for centuries is assessed. In the Spring Term the student is introduced to Roman poetry through readings in Vergil's *Aeneid*. The student will begin to understand how Vergil, as heir to the Homeric tradition, gave to epic and to Western poetry in the generations that followed him its definitive form. The text is Gillingham and Barrett's *Latin: Our Living Heritage, Book III* (Charles E. Merrill Books).

31—0 Latin

(5180) Five prepared class periods. The course follows the same outline as *Latin 30*, but begins with a more extensive review of the work covered in the second year for those students with little or no experience in reading Caesar.

40—123 Latin

(5191) Four prepared class periods. Through a thoughtful reading of Vergil's  
(5192) *Aeneid*, students are introduced to the great classical traditions of epic  
(5193) poetry. The literary form and beautiful, symbolic content of the *Aeneid* become familiar as the model and inspiration of our western poetical heritage. Homer, as Vergil's well-loved and frequently emulated model, is read in translation; the comparison and contrast of the Homeric tradition with Vergil provide a clear understanding of the Latin author's techniques and purpose.

50—123 Latin

(5201) Four prepared class periods, one unprepared period devoted to sight work.  
(5202) The course includes preparation for the Latin Advanced Placement Examination. In the Fall Term, selections from Livy's *Histories* give students insight into the foundations of some of the Western World's ideas of government and law. Selections from Tacitus' *Annals* are read as a contrast because of their studied depiction of human excess in tyranny and degradation. In the Winter Term, Roman comedy treats students to the bases of European high comedy and farce. In the Spring Term, the students begin to understand the Roman concepts of moderation versus excess through the writings of the poet Horace, described by a Twentieth Century psychiatrist

as "a type of the perfectly integrated personality." The lyric poetry of Catullus reveals the perennial personal emotions found as well in the First Century BC as now.

### Classics Courses

**21—1 Classical Civilization: Greece**

(5321) Four prepared class periods. For Juniors and Lower Middlers. The course

**21—3** surveys the achievements of the ancient Greeks from Homeric times

(5323) through Alexander the Great, including some sense of their impact on later civilizations, in such areas as literature, art, philosophy, drama, government, and science—in short our cultural "roots."

**22—2 Classical Civilization: Rome**

(5332) Four prepared class periods. For Juniors and Lower Middlers. The course

**22—3** introduces students to the civilization of Rome which dominated the Western World politically for a thousand years and culturally for even longer.

(5333) The development of the concepts of politics, law, and empire as we know them today are discussed. The course challenges the student to consider the meaning of the Roman experience in the results of the "Roman Peace" as well as in its "Decline and Fall." The texts are Starr's *The Ancient Romans* (Oxford), Barrow's *The Romans* (Penguin), and *The Portable Roman Reader*, ed. Davenport (Viking).

*For other courses related to the Classics, please see History 59 (Ancient History) and, in the Interdisciplinary section, Biblical and Classical Mythology, Epic Poetry, Etymology, Greek Literature in Translation, and Roman Literature in Translation.*

## English

The diploma requirements in English are to establish competence in writing and reading (normally by successful completion of the *Competence Course*), and to complete the *Literature Sequence* through *Literature C*. For those entering Seniors who must take the *Competence Course*, the requirement is reduced by the appropriate number of trimesters.

The English Department also offers courses at the following levels: *English 10* for Juniors; specialized courses for students who have already passed their competence and literature requirements and elect to continue studying English. Related courses, whose prerequisites vary, are listed elsewhere in this booklet: e.g., under Performing Arts, Interdisciplinary Courses, Classics Courses, and



Modern Foreign Language Courses in translation. All English courses meet for four prepared classes a week, unless the course description states otherwise.

## JUNIORS

Students entering the Junior Class are strongly urged to take the normal Junior course, *English 10*, although they may elect to take no English at all.

## LOWER MIDDLELERS AND UPPER MIDDLELERS

Entering Lower Middlers and Upper Middlers should take the *Competence Course*. They will be advanced to the *Literature Sequence* as soon as they establish competence.

## SENIORS

Entering Seniors take the *Competence Course* in the Fall Term. If an entering Senior is deemed competent early in the Fall Term, he may apply to the Department Chairman for permission to waive the literature requirement and enroll in one of the specialized courses.

## Introductory Courses

### 10—0 English

(1100) This course is the Department's standard course for Juniors. It is a year-long offering and must be taken for all three trimesters if the student wishes to earn credit for the course. Throughout the year there is emphasis on sentence structure, paragraphing, and articulate expression in speech and writing. The student learns to observe and to listen; to keep a journal; and to read literature sensitively and intelligently. In the Fall Term each class studies myth, using Homer's *Odyssey*; in the Winter Term the focus is on literature of observation, like Twain's *Life on the Mississippi*; in the Spring Term at least one Shakespeare play is read.

### 16—23 Language Skills (T2) (a two-term commitment)

(1165) This course is designed for those students, primarily Juniors, who need supplementary help in overcoming weaknesses in reading, writing, spelling, and vocabulary. By studying the structure of words and sentences, and by practicing patterns of pronunciation, students can learn to understand language better and use it more effectively. Specific assignments are geared to the needs of each student. Open only to students who have permission of the Chairman of the English Department.

*Juniors are also eligible to enroll in Etymology, which is described under Interdisciplinary.*

## Normal Required Sequence (2 years)

First year of sequence

Second year

Fall	Winter	Spring
Competence	Lit A (T2)	
	Lit B (T2)	Lit C

(1201) **Competence Course**

The course is designed to teach the basic skills in reading and writing. It enables a student to achieve the competence requisite for the literature and the specialized courses. The course is concerned with the recognition and use of the basic elements of a sentence, sentence patterns, punctuation, paragraph development and coherence, and the composition of unified exposition. It encourages the acquisition of important reading skills in conjunction with the study of writing. Passages that have been composed by skillful writers are evaluated for their particular strengths: organization, logic, point of view, tone, diction, transitional devices. Through the use of the summary sentence, the outline, and the summary paragraph, a student learns to reduce a passage to core ideas.

**Literature Sequence**

The texts listed comprise about half the reading in each course, the remaining texts to be chosen by the individual instructor of each section.

(1215) **Lit A (T2) (a two-term commitment)**

This course builds on the writing skills of *Competence* by applying them to tasks of more specificity, complexity, and scope. During the first term, emphasis is placed on writing for a specific analytic purpose and on documentation. The essay, as example of specific kinds of expository writing, is studied. The second term focuses on close and accurate reading of the short story and poem and emphasizes the skills necessary to write about these works clearly and concisely.

Texts: *Prose Models*, ed. Levin  
50 *Great Short Stories*, ed. Crane  
*Short Story Masterpieces*, ed. Warren and Erskine  
*Sound and Sense*, ed. Perrine

**Lit B (T2)**

A choice among three courses in English and American literature 1660–1900. Each course is a two-term unit.

(1224) **Lit B-I (T2) (a two-term commitment)**

The prose and poetry of the late Seventeenth and Eighteenth Centuries, with emphasis on satire.

Core Texts: FALL TERM

Swift, *Gulliver's Travels*

Pope, selected poems

WINTER TERM

Fielding, *Joseph Andrews*

Blake, selected poems; or selections from *Eighteenth Century Minor Poets*

(1234) **Lit B-II (T2) (a two-term commitment)**

Romantic literature in England and the United States.

Core Texts: FALL TERM

Keats

Bronte, *Wuthering Heights*; or Shelley, *Frankenstein*

WINTER TERM

Whitman

Melville, *Moby Dick*; or Hawthorne's short stories

- (1244) **Lit B-III (T2)** (a two-term commitment)  
 English and American literature of the later Nineteenth Century  
 Core Texts: **FALL TERM**  
                   Hardy, *Mayor of Casterbridge*; or Dickens, *Hard Times*  
                   Browning  
**WINTER TERM**  
                   Twain, *Huckleberry Finn* or *Pudd'nhead Wilson*  
                   Dickinson, *Final Harvest*

- (1263) **Lit C**  
 An introduction to the study of Shakespeare. At least two plays will be read, one a tragedy, with an emphasis upon close textural analysis.

### lective Courses

*Only courses with sufficient enrollment will be given.*

- 18—1 Efficient Reading**  
 (1181) Primarily for Upper Middlers and Seniors. A course for increasing reading  
 18—2 speed and comprehension, using the *Harvard Reading Course* with sup-  
 (1182) porting exercises in writing and vocabulary.

### ialized Courses

Specialized Courses are open to students who have successfully completed *Literature A, B, and C*. Courses numbered in the 500s are more intensive and demanding than those numbered in the 400s. Each course has four prepared class periods a week, unless specifically stated otherwise.

- 0—123 Irish Studies**  
 (1701) First a look at the history and folklore of Ireland and then an attempt to  
 (1702) trace their influence on Irish writers from the Celtic period to the I.R.A.  
 (1723) (Ms. Bussiere)
- 02—23 Great Writers Before 1850**  
 (1722) This course is intended primarily for students who have taken *Lit B-III* and  
 (1723) want to increase their knowledge of writers prior to 1850. Each term students study three writers and do an individual project on a fourth. Students together with the instructor choose writers from the following: Homer, Sophocles, Chaucer, Shakespeare, Donne, Pope, Fielding, Keats, and Austen.
- 03—12 Introduction to Writing (T2)** (a two-term commitment)  
 (1734) An introductory course to the writing of original short stories, informal essays, and poetry. After examining examples of the genres mentioned, the student tries his hand at one or more of these forms. The second term, for which the first is a prerequisite, is devoted largely to reading works in progress. With written permission from the instructor, a student may take this course before he has completed the normal *Competence* and *Literature Sequence* requirements. (Mr. Owen)

- 404—3     **Hemingway: The Man and His Work**  
(1743)     A close reading of Hemingway's short stories and *The Old Man and the Sea* and a final report by each student on either *The Sun Also Rises*, *A Farewell to Arms* or *For Whom the Bell Tolls* will be used to achieve some appreciation of Hemingway's technical skill, symbolism, and relentless ethics. Carlos Baker's *Ernest Hemingway: A Life Story* will be used to establish a biographical and historical reference for class discussions and written assignments. (Mr. Sykes)
- 405—23     **Black Literature**  
(1752)     The theme and content of this course will vary each term. The first term's  
(1753)     theme is "Toward the Promised Land": a consideration of several African-American authors' depiction of their people's migration from the South to the North and the frustrations of the "dream deferred." Works by Ellison, Baldwin, Wright, Hughes, McKay, and Toomer are read.
- 500—12     **James Joyce**  
(1801)     The first term is devoted to *Dubliners*, *A Portrait of the Artist*, and  
(1802)     *Stephen Hero*, and Ellmann's *James Joyce*; the second to *Ulysses* and *Finnegans Wake* in part. The purpose of the course is to follow the development of Joyce's method and style and to develop the skill to read important and difficult works without the aid of study guides and other secondary material beyond the Ellmann. Although the course may be taken in either term, the student gains a better sense of Joyce's genius by enrolling for two terms. (Mr. Brown)
- 501—23     **Man and God**  
(1812)     The course considers man's search for meaning in what frequently seems to  
(1813)     be an inexplicable world. Readings include *The Oedipus Cycle*, Sophocles; *King Lear*, Shakespeare; *Rosencrantz and Guildenstern Are Dead*, Stoppard; *Long Day's Journey into Night*, O'Neill; J.B., MacLeish; *A Portrait of the Artist as a Young Man*, Joyce; *The Fixer*, Malamud; *The Idiot*, Dostoevski; *The Trial*, Kafka; *Tiny Alice*, Albee; *The Birthday Party*, Pinter; *The Sound and the Fury*, Faulkner; *Short Stories*, Salinger; *Rabbit Run*, Updike; *Wisblood*, O'Connor. (Rev. Hennigan)
- 508—2     **Directions in 20th Century Drama**  
(1822)     The close study of significant contemporary drama, specifically Ibsen's *Ghosts*, O'Neill's *The Iceman Cometh*, Williams' *Streetcar Named Desire*, Bolt's *A Man for All Seasons*, Osborne's *Look Back in Anger*, Beckett's *Waiting for Godot*, Pinter's *The Homecoming*, Ionesco's *The Lesson*, Albee's *Who's Afraid of Virginia Woolf?*, and Stoppard's *Rosencrantz and Guildenstern Are Dead*. (Mr. Owen)
- 509—23     **Shakespeare: The Man, The Times, The Theatre, The Plays**  
(1832)     Each term a cycle of related plays is read, with biographical and historical  
(1833)     material. During the course of the two terms the class reads representative tragedies, histories, and comedies. (Mr. Cobb)



**510—123 Forms of Literary Imagination**

- (1841) Each term is devoted to the study of an important literary form. In the  
 (1842) fall, the concentration will be upon three novelists (Dickens, Dostoyevsky,  
 (1843) Tolstoy); in the winter, upon three poets (Milton, Yeats, Hopkins); in the  
 spring, upon dramatists, ancient and modern (Euripides, Gay, Ibsen,  
 Rostand, Brecht, Shaw). (Dr. Theroux)

**12—12 Satire and Comedy**

- (1851) A study of both the theories and practice of satire and comedy, with em-  
 (1852) phases on the eighteenth century and the modern period. Works by  
 authors like Pope, Swift, Sterne, Ben Jonson, Waugh, and Heller will be  
 studied in conjunction with the visual art of Hogarth and Steinberg, and  
 recordings of modern performers like Cohen and Sahl. (Mr. Regan)

**13—123 Novel & Drama Seminar**

- (1861) The course concentrates on major works of literature since 1880, primarily  
 (1862) on the works of Virginia Woolf, Henry James, David Storey, Franz Kafka,  
 (1863) Flannery O'Connor, T.S. Eliot, Samuel Beckett, Eugene O'Neill, William  
 Faulkner, Jean Paul Sartre, Saul Bellow, Gabriel Garcia Marquez, Grace  
 Paley, John Barth, Isaac Bashevis Singer, Elie Weisel, Harold Pinter,  
 Christina Stead, and Vladimir Nabokov. Students study the "world" of  
 each writer and compare it with that of the others. As a basis for the com-  
 parison with the classics of the past, they also study a Greek Tragedy and  
*The Brothers Karamazov*. Class periods are devoted to seminar discussions  
 (often led by students) and critiques of student writing. Students regularly  
 stage dramatic readings, cast and performed by the class.

**514—123 Creative Writing**

- (1871) The course combines creative writing with the study of literature, literary-  
 (1872) critical theory, ontology, and eschatology. Class periods are devoted to  
 (1873) workshops in which student writings are discussed and to seminar discus-  
 sions of literary works. Normally the first term is devoted to fiction, the  
 second to poetry, and the third to a combination of genres. (Mr. Lopes)

**517—123 American Writers of the Twentieth Century**

- (1881) A thematic and comparative study of the novel and drama in America  
 (1882) from 1900 to the present. Representative authors are Wolfe, O'Neill, Fitz-  
 (1883) gerald, Dos Passos, Hemingway, Williams, Faulkner, West, Styron, and  
 Agee. (Dr. Goodyear)

**518—3 Milton and Spenser**

- (1893) Students read shorter works of these two masters in preparation for study,  
 in the second half of the term, of either Spenser's *The Faerie Queene* or  
 Milton's *Paradise Lost*. The class meets in tutorials when reading the epics.

**527—3 Chaucer and his Age**

- (1903) The wit, poetry, and genius of the later Middle Ages and Renaissance, as  
 seen in Chaucer and medieval drama. (Mr. Regan)

**528—2 Wit and Poetry in the Seventeenth Century**

- (1912) A study of the several types of concentrated, witty poetry that dominated  
 the early seventeenth century—the schools of Donne, Jonson, Herbert, and

Herrick—and of the profound effect that these poets have had on later poets like Hopkins and Eliot. Although the focus of the course is poetry, some of the background material is prose, from Plato to the modern literary critics.

529—3 Writing Short Fiction  
(1923) (Dr. Theroux)

*The following Theatre courses, which are related to English studies, have no prerequisites: Theatre 22 (Public Speaking), Theatre 28 (Shakespearean Workshop), and Theatre 29 (Playwriting). These may be found under Performing Arts. Other courses related to English are Art 311 (Contemporary Communications) and a number of literature in translation courses and Literature of the Quest in the Interdisciplinary section.*

## History and the Social Sciences

The diploma requirement for history is successful completion of *United States History (History 35)* plus one trimester elective taken in the Upper or Senior Year.

Two of the courses offered for Juniors and Lower Middlers—*China Today* and *the Emergence of Man*—are designed to introduce the students to a culture different from their own. One course, *Early American Society*, stresses topics other than politics prior to the Revolutionary period. The basic offerings at this level, however, are three courses focused on the study of great men.

The History Department *recommends* that during the Junior or Lower Middle years each student should take one term of biographical study. The selection should be made from *History 20, 21, and 22*. The Department believes that study in one of these courses will not only give the student an introduction to history through the study of great men but will also enable him to acquire certain fundamental skills in preparation for upper-level history and social science courses. The Department will emphasize various skills in reading, note-taking, the definition of historical and social science terms, the use of evidence, and the writing of historical essays.

The courses in history are offered to Upper Middlers and Seniors. They are based on the conviction that a knowledge of the past is essential if an individual is to function effectively as a citizen

in a modern democracy. Again, the approach is topical; the traditional aim of training students to handle historical material with discretion and to write essays containing substantive factual support for general statements remains; the pedagogical techniques for accomplishing this are constantly under review.

Multi-disciplinary courses in the social sciences are also available for Upper Middlers and Seniors who wish to study particular societies of the twentieth century and who wish to have a work-study off-campus learning experience.

The essential purpose of all courses is to give the students training in the understanding of domestic and international problems that will serve them well as citizens. It is also hoped that for some students the courses may kindle an interest in the study of human society, past and present, that can be a source of pleasure and profit all their lives.

#### Courses in the Social Sciences

##### 14-1 China Today

(2141) Since about one-fifth of the earth's population is Chinese, what happens in that country is of tremendous significance to the rest of the world. One of the questions often asked by observers about Communist China is, "Will it last?" In this course we examine some of the ideas and experiences from China's past that are most remembered and honored (or dishonored) in its present. This exercise makes us, if not instant prophets, at least well-informed observers of the adjustments that China's aging and shifting leadership will have to make in the future. Emphasis is also put on the development of the student's skills in history: reading, note-taking, and writing are stressed, in preparation for later work in the field. (Mrs. Sizer)

##### 15-12 The Emergence of Man (T2) (a two-term commitment)

(2154) Using an anthropological approach, this course concerns itself with the development of the human species and of human society. After an introductory study of two contemporary hunting and gathering societies, the course focuses on the origins of humanness, tracing man's biological and cultural development during the Pleistocene Age. With the arrival of modern man, students consider the emergence of complex societies, using evidence from Jarmo to explore the implications of the Neolithic Revolution, and from Sumer to study the advent of civilization. A wide variety of materials are used: readings (including materials published by the American Anthropological Association), films and filmstrips, fossil casts, and artifacts. In addition, considerable use is made of the resources of the Peabody Museum of Archaeology. (Mr. Richards)

##### 103-1 Environments and the Individual

(2831) Four prepared periods. An exploration of the ways in which different societies shape growing persons, whether by conscious or unconscious design, and of the meaning of individual freedom within a social context.

The course begins with a study of the socialization of children and young adults in a primitive tribe, then examines the efforts of nineteenth century theorists such as Fourier, Owen and Marx to explain individual learning or social change, and to design working Utopian communities. Moving into the twentieth century, the class compares psycho-analytic approaches to understanding human growth with behaviorist concepts of learning and teaching and enters the hereditary-environment controversy by analyzing the way in which an evaluative device (the I.Q. test) has created new social realities. Texts include: Thomas, *The Harmless People*; Marshall, *Kung of the Nyae Nyae*; Erikson, *Childhood and Society*; Hermstein, *IQ*; Gintis and Bowles, *The New Assault on Equality*. (Ms. Lloyd)

404—3 Introduction to Economics

(2843) Four prepared class periods. For Seniors. This course is an introduction to economic theory and its application to the real world. It focuses on the nature of capitalism and the Marxian critique of the capitalist system. It considers demand, supply, and prices; it investigates the decline of free enterprise and the rise of oligopolies and multinational corporations. It looks at the managed capitalism of the United States and the role of the federal government's fiscal and monetary policy in economic growth. Finally, it discusses selected economic problems today, particularly agriculture, international development, and the concept of abundance. Readings include McConnell, *Economics*; Heilbroner, *Inquiry into the Human Prospect*; Potter, *People of Plenty*; and Meadows et al, *The Limits to Growth*. (Mr. Sewall)

(Not offered in 1978-79.)

405—2 Ethnicity and Racism in American Society

(2852) Four prepared periods. Using other major ethnic groups as a basis of comparison, this course focuses on black Americans' experience in the 20th century, the special problems and strengths that arise out of the heritage of slavery, and the triumphs and limitations of the Civil Rights revolution. All students undertake some kind of investigative fieldwork during the winter. Texts include: Moynihan and Glazer, *Beyond the Melting Pot*; Tyack, *Black Americans in the Twentieth Century*, *The Autobiography of Malcolm X*; Denison, *The Lives of Children*. (Ms. Lloyd)

## History Courses

10—1 Early American Society

(2101) Four prepared periods. For Juniors and Lower Middlers. A topical survey of pre-revolutionary American society, the course is designed to acquaint students with skills in historical exposition. Topics include the family, slavery, commerce and farming, religion and the arts. (Mr. Crawford)

10—2

(2102)

10—3

(2103)



- 20—1 **Leaders of the Western World: The American Scene**  
 (2201) Four prepared class periods. For Juniors and Lower Middlers. As a comparative study of American leaders, the course deals with the lives of men and women who made significant contributions in several fields of endeavor. (2202) Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, contemporary American eras, and biographers' methodologies are all components of this study. (2203) Course materials include selected biographies in paperbacks: *The Autobiography of Frederick Lewis Douglass*; Samuel Eliot Morison, *Christopher Columbus, Mariner*; Ester Forbes, *Paul Revere and the World He Lived In*. (Mr. Lyons and other members of the Department.)
- 1—123 **Leaders and Issues of the Western World: The European Scene**  
 (2211) Four prepared class periods. Open to Juniors and Lower Middlers. A full-year sequence but may be elected on a term basis. The course covers (2212) roughly the medieval to early modern period of European history and the personalities and ideas that influenced it. An attempt is made to recreate (2213) the climate of former ages by including not only historical facts but the ideas and movements which changed civilizations through literature, art, and the interplay of political, religious, and social forces. Course material includes biographies, plays, or studies in social history and some reading of original texts. Representative titles of paperbacks used are *Medieval People*, by Eileen Power; *The Worldly Philosophers*, by Heilbroner; *Robespierre and the French Revolution*, by Thompson; *The World of Copernicus*, by Armitage. The Fall Term covers roughly the period up to the early Renaissance; Winter Term, Renaissance and Reformation; Spring Term, the religious wars, the development of national states, and the struggle between Absolutism and Constitutional Government. (Mr. Royce and other members of the Department)
- 22—3 **Asian Biography**  
 (2223) Four prepared class periods. For Juniors and Lower Middlers. This course will deal with the lives of Mao Tse-tung, Hirohito and Gandhi, as well as one extra figure chosen by each student for outside reading and a report to the rest of the class. Besides learning about each person and the environment in which he lived, we will attempt to see how the two acted upon each other. There will also be much emphasis on skills commonly required to do good work in history: discriminating reading, speaking, note-taking and the various forms of writing which are used in this field. (Mrs. Sizer)
- 35—0 **The United States**  
 (2350) Four prepared class periods. For Upper Middlers and Seniors, though normally taken in the Upper Middle year. This course, together with an additional term course to be elected from among the 40, 50 or 60 level history and social science courses, fulfills the diploma requirement in history. *History 35* is based on a series of paperbacks, original documents, and other readings that provide material for a survey of the history of the United States from the period before the Revolution to the present. Early

topics stressed are the American Revolution, the establishment of the Federal Union, the age of Andrew Jackson, and the Civil War and Reconstruction. The emphasis then shifts to the industrialization of the United States, the problems that industrialization produced, and the attempts of the American people to deal with these problems. Finally, the course deals with the emergence of the United States as a world power, its part in two world wars, and the problems that it faces today. At the start of the course, emphasis is placed on such skills as close reading, note taking, and the writing of essay questions. Later on the student is introduced to different kinds of historical material, with more emphasis on discussion. In the Spring Term the writing of a research paper represents a major part of the work.

Representative titles are Edmund Morgan's *Birth of the Republic*, two volumes in Macmillan's *New Perspectives in American History* series, two volumes in the American History Series edited by Carl N. Degler and David M. Potter, and William E. Leuchtenburg's *The Perils of Prosperity*.

Candidates for the *Washington Intern Program* are selected from students taking *History 35* as Upper Middlers.

#### 41-123 East Asia in Revolution

- (2411) Four prepared class periods. For Upper Middlers and Seniors. "Revolution"
- (2412) has become cheap currency, but there is really little else that can appropriately
- (2413) characterize the movement of Chinese and Japanese histories over the past century. The course is thought of as a year-long course, but it is offered in three term-contained units as follows: Fall: THE TRADITIONAL EAST ASIAN SETTING; Winter: THE IMPACT OF THE WEST; Spring: THE EAST ASIAN RESPONSE.

To begin to understand the dynamics of contemporary East Asia, an attempt must first be made to comprehend the East Asian tradition. For this purpose, the Fall Term's work includes readings from E. O. Reischauer and J. Fairbank, *East Asia: The Great Tradition*; C. Fitzgerald, *A Concise History of East Asia*; H.G. Creel, *Chinese Thought from Confucius to Mao Tse-tung*; E.O. Reischauer, *Japan, The Story of a Nation*; J. Fairbank, *The United States and China*; and Allie M. Frazier (ed.), *Chinese and Japanese Religions*. The Winter and Spring Terms include readings from Teng and Fairbank, Michael and Taylor, Mary C. Wright, O.E. Clubb, H. Borton, R.K. Hall, A.D. Barnett, R. North, S. Schram, and E. Snow.

The course consists of readings (as noted above), lectures, audiovisual materials, map exercises, and work projects. In short, the overall effort is to introduce American students to Asia through study and critical examination of essentially the past century's histories of China and Japan. (Mr. Royce)

#### 42-123 The Discovery of India

- (2421) Four prepared class periods. For Upper Middlers and Seniors. The title of
- (2422) this course is taken from Jawaharlal Nehru's work written in Admadnagar
- (2423) Fort prison during a five-month internment in 1944. Nehru was seeking to discover India for himself as the mold of an Indian nation. We, as Englishmen before us, are attempting in this short course to begin discovery of the setting, the motivations, and the contemporary problems of an alien people who constitute the second most populous nation on earth. In the

Fall Term we are especially concerned with Traditional India: geography, thought, religion, the social setting, and early history. The following Winter Term concentrates on Imperialism (British India), Gandhi, and Indian Independence. Readings may include Nehru; P. Spear, *India: A Modern History and India, Pakistan and the West*; H. Smith, *The Religions of Man*; A.M. Frazier, *Readings in Eastern Religious Thought*; P. Woodruff, *The Men Who Ruled India: The Founders*, Vol. I; Robert Payne, *The Life and Death of Mahatma Gandhi*; and M. Brecher, *Nehru: A Political Biography*. (Mr. Royce)

- 43—0  
(2430) **Modern Europe: A Survey**  
Four prepared class periods. Open to Upper Middlers and Seniors. The Fall term consists of a background survey of the 16th, 17th, and 18th centuries, with particular emphasis on the political, economic, and intellectual revolutions that helped to mold the modern world. The focus of the Winter Term is the period 1800-1900, with continuing attention given to the shaping of modern thought, the emergence of the nation-state, and the effects of industrialism. In the Spring Term, the course covers topics in 20th century Europe; the two World Wars, and their effect; the nature of totalitarianism; the cold war and the rise of the superpowers.

Reading is from primary and secondary sources, as well as fiction. Visual materials are used where appropriate. This course has proven to be a good preparation for the Advanced Placement Examination in European History. (Mr. Richards)

- 44—3  
(2443) **Modern Russia**  
Four prepared class periods. Open to Seniors and to Upper Middlers. After an initial examination of Russia's medieval and early modern background, the course focuses on the past hundred years of Russian history, with a careful study of the revolutionary changes which have transformed that country internally and created one of the great powers of the contemporary world. Although the general orientation is chronological, the course focuses on specific topics of particular significance: the tension between east and west; the rise of the intelligentsia; Lenin and the Bolshevik Party; the Stalinist totalitarian system; Soviet foreign policy; the contemporary Russian mind. Emphasis is placed on political affairs, and especially the Revolution of 1917, but considerable attention is also given to economic, social, and cultural matters. Reading is from a wide variety of sources, both primary and secondary, and also works of fiction. Visual materials, principally films, are also used. (Mr. Richards)

- 45—1  
(2451) **International Relations: The Present Patterns**  
Four prepared class periods. For Upper Middlers and Seniors. In its essentials the course is limited to the contemporary era of international affairs, a span of years that is now more than a quarter of a century old, extending from the diplomacy of World War II to the current era of detente.  
45—2  
(2452)  
45—3  
(2453) The emphasis is upon the international politics of the world's two superpowers, the United States and the Soviet Union: how they created the United Nations, the Cold War, the many alliances, the nuclear arms race, and the numerous confrontations between themselves and their respective allies; how, too, they prompted the formation of the Third World and repeatedly intervened in its affairs with financial aid, advice, arms, align-

ments and troops; and finally, some reasons why they continue to perpetuate these massive manifestations of their great power. The course does not seek to fix praise or blame but rather to discern and comprehend the main lines of the predicament and to suggest possible alternatives. Textbooks, the periodic literature of journals, monthly and fortnightly publications, and newspapers are all employed. (Mr. Bunnell)

46—2     **Topics in the History of Phillips Academy and Abbot Academy**

- (2462) Four prepared class periods or the equivalent. Involving work in the Phillips Academy and Abbot Academy Archives on some aspect of history of  
46—3  
(2463) the schools, the course introduces the student to the problems of working with the raw materials of history. Permission of the instructor is required for enrollment. (Mr. Allis)

47-1     **Victorian England: England in an Age of Expansion**

- (2471) Four prepared class periods. For Upper Middlers and Seniors. The course is devoted to a study of the major movements and changes that challenged the British people from 1789 to 1901. It is divided into three periods: a study of the background of 1832, the early Victorians, and the late Victorians. The final eight weeks of the course are concerned with the last two periods. Since Victorian literature more directly influences the life and thought of the times than that of any other period of English history, the course examines closely those writers whose works were influential in adapting English minds and institutions to changing conditions. (Mr. Harrison)

48—1     **The Rise and Fall of the American Presidency**

- (2481) Four prepared class periods. For Seniors. The course studies the extraordinary expansion of presidential power in law and practice since the 1930's.  
48—2  
(2482) The American presidency has been the focal point of the United States government in times when vigorous government action has been called for. The Great Depression, World War II, the Cold War, the Civil Rights Revolution, the War on Poverty, and the Vietnam War—all called for the increased powers for the executive. And Presidents Roosevelt, Truman, Kennedy, Johnson, and Nixon seized the opportunities to expand presidential power. But in the Nixon administration, the nation saw executive usurpation of illegal powers, a subversion of the Constitution, and a threat of presidential tyranny. The climax was the "imperial presidency" and impeachment. The course consists of class discussions and several short analytical papers. The readings are drawn from: James Barber, *Presidential Character*; Anthony Lukacs, *Nightmare*; and Arthur M. Schlesinger, Jr., *The Imperial Presidency*. (Mr. Lyons)

49—12     **The City in America**

- (2491) Four prepared class periods or the equivalent. Limited to fifteen Seniors  
(2492) and Upper Middlers. Prerequisite: permission of the instructor. Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing *via* nine brief weekly papers, oral presentations, analytical and interpretive thinking. Fall Term work focuses not only on definitions of "city" and "American city," but also on the proper role of the historian toward the city, and on the evolution of the city from prehistoric times through the American colonial period. The Winter Term deals with differ-



ent "types" of American cities—such as New York, Salt Lake City, Los Angeles—evolving between the Eighteenth and Twentieth Centuries.

The course entails occasional visits to Boston and Lawrence, and continuous monitoring of ten urban newspapers, such as the *Atlanta Constitution*, the *Chicago Daily News*, and the *Denver Post*. General readings include: Edward Banfield, *The Unheavenly City Revisited*; Lewis Mumford, *The City in History*; urban novels like Theodore Dreiser, *Sister Carrie*; and monographs like Gunther Barth, *Instant Cities*. (Mr. Quattlebaum)  
(Not offered in 1978-79.)

#### 49-3 The City In America

(2493) Prerequisite: *History 49-1* or *History 49-2*. The student embarks on an individual, historical research project, either on a particular American city or on a selected aspect of several cities. (Mr. Quattlebaum)  
(Not offered in 1978-79.)

#### 50-1 Schools in America

(2501) Four prepared periods. For Seniors and Upper Middlers. (This course is planned parallel to *History 51, Families in America*, and can be taken in a coordinated sequence with that course, as well as a single term-contained offering.) The course analyzes the purposes for schooling perceived during the nineteenth and twentieth centuries and the institutions Americans created and supported to promote those purposes. Reading is drawn from historical sources and from contemporary social science and philosophy. Students are expected to relate the material to the "aims" of their own educations. (Mr. Sizer, Mr. Henningsen)

#### 51-2 Families in America

(2512) Four prepared periods. For Seniors and Upper Middlers. (Given parallel to *History 50*. See note under that course description.) The course examines family structure, function, and development from the colonial period to the present. Sex role, methods of child nurture, economic base of the family, and varieties of family patterns growing out of different ethnic backgrounds are among the major topics studied. Readings are drawn from primary and secondary sources. (Mr. Crawford)

#### 52-3 Quantitative Historical Data Analysis

(2523) Four prepared periods. Prerequisite: Permission of the Instructors. This course provides an introduction to the use and abuse of quantitative methods in historical research. Attention focuses on three main areas: elementary statistics, relevant historical literature, and the logic of historical inquiry—that is, the fundamentals of research design. To accomplish these purposes, participants do assigned homework problems on statistics and read exemplary works in the field, in order to discuss their merits and demerits. Most of the reading is from two books: Hubert M. Blalock, Jr., *Social Statistics*; and Robert P. Swierenga (ed.), *Quantification in American History*. (Messrs. Best and Quattlebaum)

#### 3-123 Women, Men, and History

(2531) In the Fall Term, after an introduction to the study of social organization  
(2532) (including economic, religious and familial aspects) the course briefly con-  
(2533) sideres the restrictive position of women in classical Greece. We then study

Rome and the emergence from a primitive, agricultural background of an urban, enlightened attitude towards women. The complexities of the Empire and the liberal status of women, particularly in economic affairs, conclude the term. (Mrs. Clark)

The Winter Term starts with the reshaping of Roman laws and customs by the rapidly emerging Christian doctrine; these in turn are changed by the invasions of the Germanic peoples. Charlemagne serves as the prime illustration of this medieval combination of attitudes. In the Renaissance, humanism and rationalism dignified woman as the 'Lady' of courtly love; at the same time the fear of woman as the 'witch' haunted Europe. The Reformation demoted woman from 'Lady' to housekeeper, but it established her more firmly as an appreciated, hardworking partner within the marriage and her rights steadily, if slowly, improved. (Mrs. Clark)

In the Spring Term: Beginning with the eighteenth century revolutions and their call for human rights within a Rule of Reason, the course seeks to learn why political equality for women followed so far behind American women's own declaration of independence in 1848, and what were the ingredients of progress towards Suffrage during the nineteenth century. Then, the vote gained, what did women do with it after 1920? Does the present day "women's movement" reflect traditional American values, or is it a truly revolutionary component of a developing "human liberation" movement? Both—or neither? (Mrs. Lloyd)

**54—1 Art and Architecture in Antiquity and the Middle Ages**

(2541) Four prepared class periods. For Uppers and Seniors. This course is an introduction to Western art from Archaic Greece to fourteenth century Italy. Focusing primarily on architecture and sculpture, it covers major trends in Greek, Roman, Byzantine, Romanesque, and Gothic art. It stresses the basic vocabulary, fundamental questions, and analytical methods of the art historian. (Mr. Sewall)

(Not offered in 1978-79.)

**55—2 Art and Architecture in the Renaissance and Baroque**

(2552) Four prepared class periods. For Uppers and Seniors. It is *strongly* suggested that students planning to take *History 55* have completed *History 54*. This course covers European art from the Early Renaissance in Florence and Flanders to the Neoclassical movement of the late eighteenth century. (Mr. Sewall)

(Not offered in 1978-79.)

**56—3 Art and Architecture Since the French Revolution**

(2563) Four prepared class periods. For Uppers and Seniors. It is *strongly* suggested that students planning to take *History 56* have completed *History 55*. This course covers the diverse movements of "modern art" in the nineteenth and twentieth century. It includes occasional visits to museums in Boston and New York. (Mr. Sewall)

(Not offered in 1978-79.)

*History 54, History 55, and History 56 when taken consecutively combine to form a full year's preparation for the Advanced Placement Examination in Art History.*

—123 Ancient History

(2591) Four prepared class periods. For Upper Middlers and Seniors. The course is concerned with Greek and Roman history from the Minoan Period to the beginning of the Medieval Period. Each term represents a coherent and independent unit. In the Fall Term the survey ends with the world empire of Alexander the Great. The Winter Term covers the period from the beginning of Rome until its transition from Republic to Empire. The Spring Term is concerned with Roman Empire and the transition from Roman to Medieval History. (Mr. Krumpe)

60—2 Elizabethan England

(2602) Four prepared class periods. For Upper Middlers and Seniors. The years when England was ruled by the Tudor family were some of the most colorful and pivotal in English history. During those years, crucial political and religious changes were initiated, creativity was encouraged, and England prospered. This course focuses on Elizabeth and her England in the context of the European scene and is intended to be a study in depth. Social and cultural conditions are studied as well as political and economic conditions. The books used include the Neale biography of Queen Elizabeth. (Ms. Minard)

61—3 The Middle East

(2613) Four prepared class periods. For Upper Middlers and Seniors. Few if any regions of the world claim a more compelling interest than the Middle East. From its ancient site of half the earth's cultural antecedents, birth-place of three world religions, landbridge of three continents, eternal East-West corridor, and ceaseless crossroads of conquerors, pilgrims, and tradesmen, the Middle East derives a distinctive character of its own. And this course traces the region's emergence from the decline and fall of the Ottoman Empire (the famous "sick man of Europe") to the present day with an emphasis upon the political and economic aspects of the leading Arab states and Israel. But, as the name Middle East implies, the area is a global intersection and its history reflects a constant interplay between the nations of Africa and Eurasia as well as a certain "presence" of the Superpowers of our time; and it is, therefore, the center of a world security problem. Hence, the course also surveys international aspects with special attention to such matters as Middle Eastern oil and Arab-Israel relations. A term paper is part of the course's requirement. (Mr. Bunnell)

62—12 Modern Russia: History and Literature (T2) (a two-term commitment)

(2624) This course, for Seniors only, examines the past 150 years of Russian history and culture in somewhat greater depth than is possible in the one-term course (*History 44*). The first third of the course is devoted to Imperial Russia of the nineteenth century, with an examination both of Tsarist institutions and the growing revolutionary movement. The revolution of 1917 is the subject of close scrutiny, through readings and documents. After surveying the sixty years of Soviet rule, the course concludes with a look at the U.S.S.R. today and its prospects for the future.

Considerable attention is given to the study of literature. From the days of Pushkin in the early nineteenth century, Russian writers have been viewed by the government with fear and suspicion. This is because, despite police harassment and censorship, they have continued to write fearlessly

about the most pressing issues of their times. As this course examines the significant events and ideas of modern Russia, it also examines the reflection of these events and ideas in the fiction and memoirs of such authors as Pushkin, Gogol, Turgenev, Herzen, Dostoevsky, Tolstoy, Chekhov, Pasternak, Bulgakov, Mandelstam, Solzhenitsyn, and writers of the contemporary underground press known as *samizdat*. (Mrs. Powell and Mr. Richards)

63—1 Major "Isms" and the Nation State

- (2631) Open to Upper Middlers and Seniors. The course is fundamentally a study of government as seen through four prevailing "isms" of the contemporary world, namely: capitalism, socialism, fascism, and communism. The approach is largely descriptive, analytical, and comparative and is therefore concerned with the "isms'" historical context, their basic principles and policies, their philosophical and psychological roots, their nature as ideological systems and de facto governments, their variant structures and objectives, their mutual antagonisms and incompatibility, and their place in the balance of international ideas. It is a course in which institutions, persons, principles, concepts, theories, and ideas abound; and although it is not a complete presentation of the subject, it is a serious and complex introduction. (Mr. Bunnell)

65—2 Modern Japan

- (2652) Four prepared class periods. For Upper Middlers and Seniors. After an introduction of traditional thought and feudal social structure in Japan, the course will move on to a closer look at ideas, events and developments since 1800. An attempt will be made to understand the unique way in which Japan responded to the challenge of the west. Readings will be in historical texts, visitors' impressions, sociological descriptions and literature, with an effort to understand the outstanding features of Japanese culture, politics and economics through analysis and discussion. (Mrs. Sizer)

66—12 The American South

- (2661) Four prepared class periods or the equivalent. Limited to fifteen Seniors and Upper Middlers. Prerequisite: permission of the instructor. Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing *via* nine brief weekly papers, oral presentations, analytical and interpretive thinking. This course is a survey of the American South from Jamestown in 1607 to Houston, Los Angeles, and the Carter Administration in the 1970's. It explores southern identity, economy, class structure, slavery, race relations, violence, and late-twentieth-century ascendancy, among other themes. The Fall Term concludes with the Civil War. The Winter Term covers the Era of Reconstruction to the present. Readings include: Sheldon Hackney, "Southern Violence"; W.J. Cash, *The Mind of the South*; Kenneth Stampp, *The Peculiar Institution*; John Hope Franklin, *A Southern Odyssey*; Richard Wright, *Black Boy*; C. Vann Woodward, *The Burden of Southern History*; and Kirkpatrick Sale, *Power Shift: The Rise of the Southern Rim . . .* (Mr. Quattlebaum)



## Interdisciplinary

*All courses are electives. Courses in this section may be taken during more than one trimester unless the individual description indicates to the contrary.*

### (9311) Basic Study Skills

(9312) Four class periods. Permission of the instructor required. The course is designed to help students build effective reading and study skills through understanding more about the learning process. Class discussion focuses on the problems of motivation, concentration and retention. Exercises are designed to work on improvement in each of these areas and to develop proficiency in planning studying time, in developing accurate yet flexible reading comprehension, in taking notes or marking books, and in preparing for exams. When possible, students' texts from other courses are used for instruction. This course may be taken for at most one term. (Mrs. VanDusen)

### (9331) Biblical and Classical Mythology

(9332) A one-term course open to Juniors and Lower Middlers, this course will present the basic beliefs and myths of the four religions considered the cultural cornerstones of Western civilization: Old Testament Judaism, New Testament Christianity, Greek and Roman paganism. In addition to teaching the specific myths of these four religions, the course will explore the development of myth, the psychological meaning and use of myth, and the cultural insights provided by myth.

(9333) Material will be organized thematically, focusing on specific topics that combine and compare myths from all four religions (e.g., creation myths, the myths of the death and rebirth of the god, stories of the virgin birth of the god, etc.). This approach will emphasize the universal, archetypal nature of myth and will underscore the logic and meaning behind the particular events and personalities of the myths. With such a treatment, students will gain a firm, working knowledge of these mythologies, as well as of the psychological and cultural truths in myths. Both kinds of knowledge should be immensely useful in all areas of the humanities. The course may be taken for at most one term. (Mrs. Clark, Rev. Hennigan)

### (9341) Epic Poetry

(9342) Four prepared class periods. Each term is a prerequisite for the following term. This course focuses on Western epic poetry; the poems are delightful, unique literary monuments of great importance in the development of Western literature, and they are a fascinating means of learning about Indo-European culture, human psychology, and man's creative history. Fall term focuses on western cultural development and on psychology, with reading primarily from Bettelheim's *The Uses of Enchantment* and Frazer's *Golden Bough*. Winter and Spring Terms are devoted to the epics themselves as literature and as evidence of the Fall Term's material. *Gilgamesh*, the *Iliad* and *Odyssey*, the *Song of Roland*, *Beowulf* and Tolkien's *Lord of the Rings* are read, as well as excerpts from other European epics.

- (9351) **Etymology**  
(9352) Four prepared class periods. For all classes. Training in the interpretation  
(9353) of English words by systematic analysis of elements derived from Greek, Latin and other Indo-European languages. Exercises expand vocabulary and develop precision of expression and understanding. The course may be taken for at most one term.
- (9363) **French Music in French**  
Four prepared classes. The course will concentrate on the work of the last hundred years, beginning with a brief study of French opera. It will then focus on artistic life in Paris at the turn of the century and in particular on the music of Debussy. The course will conclude with a study of some more recent artists, among them Edith Piaf and the "chansonnier" Georges Brassens. The emphasis throughout will be on the relationship between music and language. Very little instrumental music will be discussed. Students should be at third-year level in French or higher, and, although the discussion will avoid being too technical, they should have some basic knowledge of music, such as is provided in *Music 20*. (Mr. Walter)
- (9371) **Greek Literature in Translation**  
Four prepared class periods. Open to Lowers, Uppers, and Seniors. A systematic study of the masterpieces of early European civilization as seen in their proper literary, intellectual, and historical context. In what is essentially a history of ideas, the major *genres* of epic, tragedy, comedy, satire, history, erotic poetry, and philosophy are stressed as aspects of the wider evolution of early European thought which laid the basis for modern civilization. The major problems which still confront human life are explored through the writings of Homer, Aeschylus, Sophocles, Euripides, Herodotus, Thucydides, Aristophanes, Plato and others. (Mr. Pottle)
- (9381) **Literature of the Quest**  
(9382) Four prepared class periods. Open to Seniors. Focusing on the ancient  
(9383) pattern of the journey, the thresholds crossed and the insight gained, the course asks students to interpret elements of the quest from a variety of perspectives. In the Fall Term readings include *Oedipus Rex*, the Abraham cycle, *Don Quixote* (parts), *Black Elk Speaks*, Castaneda's *Journey to Ixtlan*, and *To the Lighthouse*. The Winter Term considers the suffering met on the quest and explores themes from *King Lear*, Wiesel's *The Gates of the Forest*, *The Great Gatsby*, West's *Miss Lonelyhearts*, and Flannery O'Connor's stories. The Spring Term questions the journey's end, reading the Jacob cycle, John's gospel, *The Tempest*, *The Wizard of Oz*, *Who's Afraid of Virginia Woolf?*, and Buechner's *Entrance to Porlock*. (Mr. Zaeder)
- (9392) **Roman Literature in Translation**  
Four prepared class periods. Open to Lowers, Uppers, and Seniors. A systematic study of the Latin masterpieces as seen in their proper literary and historical contexts. The central theme of the course is that of the artist and his or her society in an age of empire. Through the writings of Cicero, Virgil, Ovid, Suetonius, Tacitus, Petronius, Apuleius and others, this course examines the tension which held between the realm of artistic self-expression and the world of political power realities. The larger question of

the relationship between the artist-intellectual and his or her society is studied in the context of imperial Rome. (Mr. Pottle)

(9401) **Russian Literature in English**

Four prepared class periods. The themes of romanticism, realism, the "superfluous person", Slavophilism, westernism, nihilism, perfectionism, and humanism are examined in the works of Pushkin, Lermontov, Gogol, Turgenev, Goncharov, Ostrovsky, Dostoyevsky, Tolstoy, Chekhov, and Gorky, both as styles of literary expression and as stimuli of Russia's social and political development. (Mr. Lane)

(9412) **Soviet Literature in English**

Four prepared class periods. A study of the conflict of individual freedom and social purpose in Russia since the Revolution, based on selected translations. Socialist realism, satire, divided personality, and dissent are examined against the Soviet political and economic background and in the perspective of Russian literary traditions. (Mr. Lane)

(9421) **Synthesis**

(9422) Four prepared class periods. Open to Seniors. This course focuses on problems which require for their understanding and resolution the concurrent use of a number of disciplines. This course may be taken for at most one term. (Messrs. Roehrig and Sizer)

(9601) **Typing**

(9603) This course in personal typing is open to all students; it is designed for beginners to learn the keyboard and basic typing skills. There is no charge, but students must supply their own typewriters. This course does not earn academic credit. (Mrs. DiClemente)

*For other courses which are interdisciplinary in nature, see Art 311.*

## Mathematics

Mathematics at Andover is addressed to several overlapping audiences within the student body: the future citizen of late twentieth century society, immersed in a culture which has been shaped to a large extent by mathematical perceptions of reality; the future user of mathematics, whose vocation may depend upon special knowledge of a mathematical sort; and the future mathematical scholar, who may turn his energies and curiosity to the organization or dissemination of mathematical knowledge.

To serve all needs the mathematics curriculum is built around a core sequence of eight trimester courses, three of elementary algebra, two of geometry, and three of precalculus topics, completion of which will satisfy diploma requirements and provide a firm foundation for more advanced study. A student entering with little or no prior study of algebra normally starts with *Mathematics 10*; those with a partial year of algebra enter *Mathematics 19-1* and continue to *Mathematics 20-23*. Students entering with a full year of algebra enter *Mathematics 20-12*. Those with one year of algebra and one year of geometry will satisfy diploma requirements by taking *Mathematics 30* for one year.

Placement of new students in the appropriate first course is made in light of the record in previous schools and the results of a self-administered diagnostic test in elementary algebra which is sent to newly admitted students in the Spring.

The College Entrance Examination Board Achievement Test in Mathematics is most appropriately taken near the end of or immediately following *Mathematics 30, 31, or 35*.

Beyond the required level, *i.e.*, *Mathematics 30 or 35*, the department offers many electives, some of which lead up to and well beyond the Advanced Placement Examinations of the College Board. The prerequisites of such courses should be carefully noted, particularly by those students who are involved in terms away from Andover.

In addition to its course offerings, the department manages the campus computer time sharing system. The computer, a Digital Equipment Corp. PDP-11/45 is housed in the mathematics building and serves sixteen teletypewriter terminals, of which ten are available for student use in courses and projects.

### Hand Calculators

Every student taking Mathematics or Physical Science must have a suitable hand calculator capable of handling square roots, sines, co-sines, reciprocals, logarithms and exponents. Any calculator comparable to the SR-40 is adequate for all course use.

### Courses Leading to Satisfaction of the Diploma Requirement:

- 10—0    **Elementary Algebra**  
(3100)    Five prepared class periods. A year-long course for students who have had less than half a year of algebra. Stress is placed on an understanding of the elementary structure and language of the real number system, on the



manipulative skills of simplifying expressions and solving first and second degree equations, and on the study and graphing of polynomial functions. Significant work is done with word problems, inequalities, irrational numbers, right triangle trigonometry, and an introduction to computer programming in BASIC. Prerequisite: None.

- 19—1 Algebra**  
 (3191) Five prepared class periods. A course completing elementary algebra for entering students whose knowledge is substantially less than the coverage of *Mathematics 10-0*. Prerequisite: From a half to a full year of algebra.  
 (3193)
- 20—12 Geometry (T2) (a two-term commitment)**  
 (3204) Five prepared class periods. A two-term course for students who have had a strong ninth grade algebra course, but no geometry. This course is a thorough and systematic presentation of synthetic Euclidean geometry.  
 (3205) Strong emphasis is placed on the need for precision and clarity in the writing of formal proofs. Prerequisite: A complete course in elementary algebra comparable in coverage to *Mathematics 10-0*.
- 30—0 Intermediate Algebra and Elementary Functions**  
 (3300) Five prepared class periods. A year-long course for entering students with one year of algebra and one year of geometry. Completion of this course satisfies the diploma requirements. Topics include use of the computer; the structure of groups and fields, with applications to elementary algebra; polynomial, circular, exponential and logarithmic functions and their applications. Prerequisite: Credit for one year of algebra and one year of geometry.
- 31—0 Geometry and Circular Functions**  
 (3310) Five prepared class periods. A year-long course for entering students who have not studied geometry. The course covers Euclidean and coordinate geometry, the circular functions and their geometrical applications. Offered only when demand is sufficient. Prerequisite: Credit for one year of elementary algebra and one year of intermediate algebra.
- 32—3 Precalculus**  
 (3323) Five prepared class periods. Logic, sets, the structure of groups and fields with applications to fundamental processes of algebra. Solution of equations and inequalities. Prerequisite: *Mathematics 20-12*.
- 35—12 Precalculus (T2) (a two-term commitment)**  
 (3354) Four prepared class periods. Mathematical induction, exponents, use of the computer, relations and functions. Major topics of intermediate algebra and trigonometry considered from a functional point of view, with particular emphasis on polynomial and circular functions. Completion of this course satisfies the diploma requirements. Prerequisite: *Mathematics 32-3*.
- 36—3 Precalculus**  
 (3363) Four prepared class periods. One-to-one functions, exponential and logarithm functions. Applications of circular functions. Required of students coming from 35-12 (T2) who plan to study calculus. Prerequisite: *Mathematics 35-12 (T2)*.

- 40—12 Elementary Functions (T2) (a two-term commitment)  
 (3404) Five prepared class periods. A two-term course for entering Seniors who have not had trigonometry but have studied three years of mathematics in high school. Required of those students whose prior work may be found not to satisfy diploma requirements. Work focuses on a review of the fundamentals of algebra, and the elementary functions. In certain cases high quality work in the Fall Trimester of 40 may be regarded as satisfying diploma requirements, but the Winter Trimester of 40 is a prerequisite for continuing study at the 50 level. Prerequisite: Credit for three years of high school mathematics. Not open to students from *Mathematics 30* or 35.

## Elective Courses

*Only courses with sufficient enrollment will be given.*

- 21—3 Intuitive Calculus  
 (3213) Four prepared class periods. Open to Juniors and Lower Middlers. This course introduces limits in an intuitive manner and begins to develop the calculus of polynomials so useful in elementary Physics. Prerequisite: None.
- 41—1 Exploring Data  
 (3411) Four prepared class periods. An introduction to techniques of uncovering the useful information contained in masses of numerical data. No reliance  
 (3412) is placed on the knowledge of or development of heavy mathematical  
 41—3 tools. Prerequisite: None.  
 (3413)
- 42—12 Probability and Statistics (T2) (a two-term commitment)  
 (3424) Four prepared class periods. Includes sample spaces, counting problems, sampling, conditional probability and applications using the computer. Random variables, expected value, variance and standard deviation. Applications of the binomial and standard normal distributions, hypothesis testing and statistical inference. Prerequisite: *Mathematics 30* or 35-12.
- 42—3 Statistics  
 (3423) Four prepared class periods. Applications of statistical inference to social and physical sciences. Estimation and hypothesis testing. Prerequisite: *Mathematics 42-12(T2)*.
- 44—3 Transformation Geometry  
 (3443) Four prepared periods. A geometry course designed to show that the interplay between geometry and algebra enriches both subjects. Area, similarity, and symmetry in geometry are examined through mappings, vectors and groups from algebra. Prerequisite: *Mathematics 30* or 35-12.
- 45—1 Mathematics Revisited  
 (3451) Four prepared class periods. A course of refreshment for those who have satisfied diploma requirements early in their high school careers but who

have since discovered a vocational or other need for resuming study. Prerequisite: Prior completion of diploma requirements and departmental permission.

#### 46—3 Theory of Numbers

(3463) Four prepared class periods. A study of the elementary theory of numbers, emphasizing the arithmetic of the integers. First consideration given to divisibility and prime numbers, ideas that underlie much of the later work. Other topics considered are congruences, Diophantine equations (and Fermat's Last Theorem), continued fractions, and certain special numbers. Prerequisite: *Mathematics 30* or *35-12*.

(Not offered in 1978-79.)

#### 47—1 Computer Programming

(3471) Four prepared class periods. An introduction to programming in the BASIC-PLUS code. The solution of mathematical problems with computer assistance. Prerequisite: *Mathematics 30* or *35-12*.

(3472)  
(3473)

#### 48—3 Numerical Methods

(3483) Four prepared class periods. A course which investigates the solution of numerical problems using both the computer and the hand calculator. Stress is laid on the approximations necessitated by the number system peculiar to the computer. Problems dealt with include finding zeros of functions (including complex zeros), solutions of simultaneous equations, fitting curves to data, and approximating functions with polynomials. Prerequisite: Open to Upper Middlers and Seniors with previous programming experience, and to others by permission of the instructor.

#### 51—1 Elementary Calculus

(3511) Five prepared class periods. The first of a three course sequence that covers the syllabus for the AB Advanced Placement Examination of the College Entrance Examination Board. Topics covered include: review of functions and graphing, theory of the definite integral, introduction to the derivative and its applications. Prerequisite: *Mathematics 30* or *36-3*.

(3512)  
(3513)

#### 2—12 Elementary Calculus (T2) (a two-term commitment)

(3524) Five prepared class periods. Theory of the derivative, chain rule of differentiation, related rates, Rolle's Theorem, Mean Value Theorem, techniques and applications of integration, Fundamental Theorem of the Calculus. Prerequisite: *Mathematics 51*.

(3525)

#### 54—3 Infinite Series and Differential Equations

(3543) Five prepared class periods. This course extends the work of *Mathematics 52* to prepare the student for the College Board BC Advanced Placement Examination. Prerequisite: *Mathematics 52* or may be taken simultaneously with *52*.

#### 55—0 Honors Calculus

(3550) Five prepared class periods. A year-long course in analytic geometry and calculus which begins only in the Fall. Students contemplating Off-Campus

Projects at some time during the year should not enroll in this course. Enrollment is limited to able and committed mathematics students, as the coverage is more theoretical and extensive than that of *Mathematics 51, 52*. Satisfactory completion of this course prepares for the College Board BC Advanced Placement Examination. Prerequisite: *Mathematics 30* or *36-3*, and departmental permission.

**61—0    Calculus Continued and Other Topics**

(3610) Four prepared class periods. The course completes preparation for the College Board BC Advanced Placement Examination, but also includes additional topics at the discretion of the instructor. Prerequisite: *Mathematics 52*.

**65—0    Linear Algebra and Vector Calculus**

(3650) Four prepared class periods. For students of demonstrated ability and interest who intend to continue their studies of mathematics in college. Vector spaces, linear transformations, matrices, determinants, systems of linear equations, the calculus of functions with vector arguments and vector values. Prerequisite: *Mathematics 55* or its equivalent.

## Special Courses

**30—1    Mechanical Drawing (Elementary)**

(3701) Two prepared class periods and four unprepared. Not open to Juniors. A term-contained beginning drawing course that includes the use of drawing instruments, lettering, geometric constructions and loci, sketching, orthographic projection, and spatial relations. Special stress is placed on a thorough mastery of fundamental concepts and skills.

**31—2    Mechanical Drawing (Intermediate)**

(3712) Two prepared class periods and four unprepared. A term-contained drawing course in applied Descriptive Geometry and Graphics involving work in sectioning and conventions, isometric and oblique pictorial projections, intersections, revolution, primary auxiliary views, and developments. Prerequisite: *Mechanical Drawing 30*.

**32—3    Mechanical Drawing (Advanced)**

(3723) Two prepared class periods and four unprepared. A term-contained technical drawing course consisting of substantial work in dimensioning, detail and assembly engineering drawing, print reading, successive auxiliary views, and/or fundamentals of design. Prerequisite: *Mechanical Drawing 31*.

**30—1    Navigation (Coastal Piloting)**

(3731) Four prepared class periods. Not open to Juniors. A term-contained course in Piloting: i.e., marine navigation within sight of land or landmarks.  
 (3732) Substantial dead reckoning and special case plotting is done on charts and small area plots. Aids and dangers to navigation are studied. Practical use is made of Tide and Current Tables, Light Lists, compass correction, radio, radar, and Loran.  
 (3733)



- 31—2 **Navigation (Celestial)**  
 (3742) Four prepared class periods. A term-contained course in Celestial Navigation: i.e., navigating at sea by means of the stars, sun, moon, and planets.  
 31—3  
 (3743) Nautical astronomy is studied. Significant work is done in coordinate conversion, time, altitude intercept theory, the solution of the Navigational Triangle by HO 214, HO 229, and the Nautical Almanac, special lines of position, the use and correction of a marine sextant, times of observational twilight, and "a day's work" at sea. Prerequisite: *Navigation 30*.

## Modern Foreign Languages

The foreign language diploma requirement is competence at the level of the third year of a modern or ancient language. Such competence is usually established by successfully completing the ninth trimester. Able students may fulfill the requirement at the end of eight, or even seven trimesters, by passing a special examination set by the department concerned.

Placement of new students in the appropriate first course is made in light of the record in previous schools, information received on questionnaires sent to newly admitted students and their current teachers in the spring, and a personal interview with the chairman of the particular language department, when deemed necessary.

All foreign languages offered at Phillips Academy are acceptable for college admission. For certain fields of concentration and in certain areas of graduate study, especially for the Ph.D. candidate, a particular language may be advisable. Consultation with academic advisors and college counselors is invited.

The 10-20 courses are designed primarily for students of proven linguistic ability wishing to begin a second or third language in their Senior year, and these courses are *not* recommended for students of limited language ability. Entering Seniors with no previous language experience must pass a 10-20 course to obtain their diplomas.

All students are encouraged to continue foreign language study beyond the minimum requirement.

## French

The French Department offers a six-year course of study. The first two years are devoted to teaching the basic language structure. In the third year, while continuing to progress in the language, a student is given the opportunity to choose the trimester courses which best serve his needs. Fourth and fifth-year courses offer study in depth of both literature and civilization. Students who demonstrate unusual aptitude for and interest in the language during the first year of study are invited to enter special sections which move ahead more rapidly without demanding more time. Those who complete the accelerated sequence may meet the diploma requirement after seven trimesters as they move directly into fourth-year courses.

In all courses, students are taught to understand, speak, read, and write the language paralleling as closely as possible the natural order of learning. French is the language of the classroom and at no time does the department teach the art of translation.

- 10—0 Beginning French**  
(4010) Five prepared class periods. First-year French for students who have had no previous courses in the language. Students make frequent use of the language laboratory. Listening comprehension and the use of basic patterns of French speech are emphasized. Elementary grammatical and idiomatic structures are introduced, as well as simple reading material. Text: Mauger, *Cours de langue et civilisation françaises*.
- 11—0 First-Level French**  
(4030) Five prepared class periods. This first-level French course is designed to help the student who has had previous instruction in the language, but whose knowledge and skills are not secure enough for him to enter a regular second-level section. The course emphasizes the development of aural-oral skills and prepares for *French 21* the following year. Texts: Pucciani et Hamel, *Langue et Langage*; Pimsleur, *C'est la vie*; Jassogne et Severance, *En vacances*.
- 12—23 Accelerated First-Level French (T2) (two-term commitment)**  
(4045) Five prepared class periods. An accelerated course offered to students of high ability. This course is continued in *French 22*. Texts: Pucciani et Hamel, *Langue et Langage*; Pimsleur, *C'est la vie*.
- 21—0 Second-Level French**  
(4060) Five prepared class periods. For students who have completed *French 11* and for new students who qualify through teacher recommendation or placement examination. While continuing to develop aural-oral skills, the aim of this course is to teach reading and the ability to understand non-technical French prose. Texts: Campbell et Bauer, *La Dynamite*; Gibson,

*Anthologie*; Goscinnny, *Le Petit Nicolas*; Pucciani et Hamel, *Langue et Langage*; Kirkland, Knox, *A mon avis*.

## 2-12 Accelerated Second-Level French

- (4071) Five prepared class periods. An accelerated course open to students who have completed *French 12* and to properly qualified new students. Successful completion of this course permits students to enroll in regular courses at the third-level during the Spring Term. Texts and reading materials include: Campbell et Bauer, *La Dynamite*; Sartre, *Les Jeux sont faits*; Sturges, Cregg, Herbst, *Une fois pour toutes*; Kirkland, Knox, *A mon avis*. By permission of the Department Chairman.

## Third-Level Courses

At the third-level, progress in all language skills continues through their application in the study of a particular area.

These courses are designed to provide program flexibility trimester by trimester. To provide continuity, systematic and coordinated grammatical review is incorporated sequentially into all courses. The text used for this review is Sturges, Cregg, Herbst, *Une fois pour toutes*.

## 0A-0 Language Review and Contemporary French Life

- (4080) Four prepared class periods. For students who have successfully completed *French 20* or *21* but who have need of further instruction in basic language structures. By permission of the Department Chairman.

## 1-123 Selected Readings

- (4101) Four prepared class periods. Reading comprehension skills are developed through a study of texts such as the following: Simenon, *Le Chien Jaune*; Saint-Exupéry, *Le Petit Prince*; Pagnol, *Topaze*; Vercors, *Le Silence de la mer*; Goscinnny, Uderzo, *Astérix et Obélix: Le Tour de Gaule*; Camara Laye, *L'Enfant Noir*.

## 32-3 Village Français

- (4113) Four prepared class periods. Using impressions and misimpressions of French and Americans of the other's culture as points of departure, this course attempts to give the student a greater understanding of the French people and their institutions as reflected in the microcosm of a town. Using the student's hometown as a basis of comparison, several French towns are examined in depth, including the provençal towns of Roussillon and Cassis and a town of the student's own choice. The basic text, Wylie, *Village en Vaucluse*, is complemented by readings, lectures, original documents and both national and regional newspapers and magazine articles. (Mr. Sturges)

## 33-12 French History

- (4121) Four prepared class periods. Open to all students who have completed second-year French. This course concentrates on the main events and personalities from the reign of Louis XIV to the Second World War. There is

a combination of lectures by the instructor, class discussions, slide and film presentations, and student reports. Text: *Initiation à la culture française* by Parker and Grigaut. (Mr. Anderson)

**34-1 Intensive Conversation and Phonetics**

- (4131) Four prepared class periods. A special emphasis on specific aspects of spoken French. Intended for students who understand French rather well  
 34-2  
 (4132) but need to gain confidence and efficiency in speaking. Dialogues, speeches, debates, interviews, and role-playing are reinforced by study of topical vocabulary, idiomatic expression, and applied phonetics. Text: Frautschi and Bouygues, *Pour et contre*.

**35-2 Written Expression**

- (4142) Four prepared class periods. Study and writing of basic sentence structures and their integration into paragraphs and compositions. Students' writing, to which instructors give close, individualized attention in small classes, is based generally on selected, short readings. The course seeks a balance between different forms of writing, both original and imitative, (description, narration, dialogue, exposition, communication). Text: Limouzy et Bourgeacq, *Manuel de Composition française*.

**36-123 Literature and Film**

- (4151) Four prepared class periods. Each term two works of fiction are studied  
 (4152) along with two movies. The books and movies for the course vary from  
 (4153) year to year. In 1977-78 elements of autobiography were traced in six films of François Truffaut. In 1978-79 the course will probably be based on classic French films and their literary sources. (Mrs. Schorr)

**39-3 Initiation to the French Theatre**

- (4173) Four prepared class periods. An active participation course in which the student follows one play from the initial reading through its final production, taking part at each step of the way. Four major phases: Reading, Analysis, Production, Performance. Throughout the course, the vocabulary of French theatrical production is studied and used. (Mrs. Kirkland)

*French Music in French, an additional Third-Level Course, may be found in the Interdisciplinary section.*

**40-123 Fourth-Level French**

- (4181) Four prepared class periods. The course consists of three term-contained units and may include the reading of French classics and the works of  
 (4182) modern authors, as well as conversation and composition. The choice of  
 (4183) texts in each trimester is determined by the class and the instructor.

**42-0 French Literature**

- (4190) Four prepared class periods. The first year of a two-year sequence leading to the Advanced Placement Examination in French Literature, open to students who have completed three trimesters of third-level courses or *French 22* and one third-level trimester course, and to properly qualified new students. It is a transition from the study of language to the study of literature. Emphasis is placed on vocabulary building, written work, and close analysis of major literary works. Texts include: Camus, *L'Étranger*;



Voltaire, *Candide*; Ionesco, *Rhinoceros*; Balzac, *Le Colonel Chabert*; and Mauriac, *Thérèse Desquérax*. Permission of the Department Chairman required.

*This course is also offered in the School Year Abroad program in Rennes.*

### 3—12 French Civilization (formerly French 33-123)

(4201) Four prepared class periods. Students electing these courses should be interested in France's past civilization and cultural achievements. A thematic study is made of the great periods of French civilization from its origins in Celtic Gaul through the end of the 19th century. Areas studied include historical, social, artistic, and literary developments. Each course is a combination of lectures, class discussions, slides, films, and students' oral reports. It is complemented by the reading of short literary and historical selections.

The first trimester begins with an introduction to French geography and then examines ancient Gaul, the era of Charlemagne, medieval society, the Renaissance, and the "Grand Siècle" (17th century). The second trimester studies the ideas of the philosophers and revolutionaries which influenced European and American life and political institutions. Also discussed are the important social and economic changes brought on by the Industrial Revolution. (Mr. Krivobok, Mr. Herbst)

### 43—3 Le Monde Francophone: French Civilization Outside of Europe

(4203) Four prepared class periods. As an international colonial power France spread her culture throughout the world. The course studies the resistance to and the assimilation of French culture by the native cultures. The student has the opportunity to study the 17 French civilizations in West, Equatorial, and North (Arab) Africa as well as the French civilization of the Antilles (Haiti, Martinique, and Guadeloupe). In addition to geographical, social, and historical study, selections are read from authors such as President Senghor, Cheikh Hamidou Kane, Aimé Césaire, Guillaume Oyo M'Bia, Birago Diop. (Mr. Herbst)

(Not offered in 1978-79; to be offered in 1979-80)

### 43—3 Québec et les Québécois

(4203) Four prepared class periods. Because of its geographical situation Phillips Academy has a unique opportunity to merge the study of French with direct observation of and participation in the North American "French experience" which is just across the nearby Canadian border as well as in the many communities surrounding Andover with large Franco-American populations. Some amount of theory is balanced with observation and analysis of every-day life in Québec province to understand its political, economic, and social institutions, and such areas as religious, educational, and artistic life. Emphasis is on a close study of the media of the province as well as personal involvement through liaison with Québec schools, students, and newspapers, and through contact with French-speaking areas of Massachusetts and New Hampshire. The course may culminate in a trip to Québec. (Mr. Dix)

(Offered in 1978-79; not offered in 1979-80)

- 44—1    **Advanced Conversation and Phonetics**  
 (4221) Four prepared class periods. Intended for students who understand, read and write French well and who already speak at a competent level, but who feel the need for further drill in conversational patterns, and idiomatic expression. Diction, intonation and elocution are also stressed through memorization, role playing, speeches, and debates. Text: Knox, *Rencontres*.
- 45—2    **Written Expression and Stylistics**  
 (4232) Four prepared class periods. Through a process of constant writing and re-writing the student progresses from simple, straightforward communicative writing to a style reflecting nuances of expression. Text: *Ecritures* by Besnard and Coursodon.
- 51—123    **Advanced French Language**  
 (4261) Five prepared class periods. A course designed to meet the requirements of the Advanced Placement Examination in French Language. Open to students who have completed three terms of fourth level French and to qualified new students. Emphasis is placed on vocabulary, conversation, composition, and reading, not only in literature, but in current newspapers and periodicals. The choice of texts is determined by the class and the instructor.
- 52—0    **Advanced French Literature**  
 (4270) Five prepared class periods. The second year of a two-year sequence, open to students who have completed *French 42* and to others who are properly qualified, with departmental permission. This course is an introduction to French literature and prepares for the Advanced Placement Examination in French Literature through the close reading of representative texts including: Corneille, *Le Cid*; La Fontaine, *Fables*; Molière, *L'Ecole des femmes*; Racine, *Phèdre*; Musset, *Lorenzaccio*; Baudelaire, *Les Fleurs du mal*; Sartre, *La Nausée*; and poetry of Hugo, Vigny, Verlaine, Rimbaud, Apollinaire, Césaire, and Damas.  
*This course is also offered in the School Year Abroad program in Rennes.*
- 60—123    **Contemporary French Literature**  
 (4281) Two prepared class periods plus one weekly (90 minute) seminar. The  
 (4282) course studies selected novels and dramas representative of the Pre-War  
 (4283) and Post-War eras. Emphasis is on particular writers and what they add to our understanding of the human condition in our times. Authors studied may include: Proust, Gide, Céline, Malraux, Mauriac, Aragon, Saint-Exupéry, Giono, Montherlant, Anouilh, Giraudoux, Aymé, Camus, Sartre, Robbe-Grillet, and Daninos.
- Senior Projects**  
 (9001) Seniors who are taking an advanced French course or who are otherwise  
 (9002) qualified may do apprentice teaching during either the Winter or Spring  
 (9003) Term. They study the techniques and methods of modern language instruction; and they practice, under careful supervision, in beginners' classes. Seniors may also undertake independent study projects in French under the direction of a faculty supervisor.

## German

The German Department offers a six-year course with the purpose of developing the ability to understand spoken German, facility in speaking, reading fluency, and the ability to write German correctly. The more advanced courses give an introduction to German literature since the eighteenth century and a survey of German history, culture and geography. German is used as the classroom language. Extensive use is made of the Language Laboratory.

The Department offers an accelerated course, *German 22*, for students who show unusual ability in *German 10*. After completion of *German 22*, these students enter *German 40* and receive four years of credit after three years of study.

- 10—0 German  
(4300) Five prepared class periods. The beginning course seeks to develop aural comprehension and oral expression, as well as a foundation in the basic grammar. The basic patterns of the language are practiced by repetition and variation. Text: Schulz-Griesbach, *Deutsche Sprachlehre für Amerikaner*.
- 20—0 German  
(4310) Five prepared class periods. Open to Seniors. A year-long accelerated introductory course covering the work of the first two levels of the normal sequence.
- 20—0 German  
(4320) Five prepared class periods. The systematic study of basic patterns and grammar is continued with Schulz-Griesbach, *Deutsche Sprachlehre für Amerikaner*. Both close and comprehensive reading of modern German prose is practiced extensively. Elementary writing is introduced at this level. Some of the books read include Kessler, *Kurze Geschichten*; Schnitzler, *Der blinde Geronimo*; Remarque, *Drei Kameraden*; Bischsel, *Kindergeschichten*.
- 22—0 German  
(4330) Five prepared class periods. An accelerated course for qualified students, covering material of both *German 20* and *German 30*. Successful completion enables a student to enter *German 40*.
- 30—0 German Literature  
(4340) Four prepared class periods. Throughout the year grammar is reviewed in Sparks and Vail, *German in Review*. Some of the books read include Brecht, *Kalendergeschichten*; Dürrenmatt, *Der Richter und Sein Henker*; Aichinger, *Der Gefesselte und andere Kurgeschichten*; Dürrenmatt, *Der Besuch der alten Dame*; Ödön von Horvath, *Jugend ohne Gott*. Emphasis is placed on reading comprehension, vocabulary building, and oral work.

40—123     **German Literature**

- (4351) Five prepared class periods. Introduction to German Literature. This course  
(4352) prepares for the Advanced Placement Examination. Through detailed  
(4353) stylistic analysis of a number of outstanding works, the students gain an acquaintance with some of the major authors and most significant trends in German literature since 1750. The works read include Brecht, *Der kaukasische Kreidekreis*; Büchner, *Woyzeck*; Dürrenmatt, *Die Physiker*; Hauptmann, *Bahnwärter Thiel*; Hesse, *Siddharta*; Kafka, *Die Verwandlung*; Mann, *Tonio Kröger*; and selected poems from Goethe to the present.

50—123     **German**

- (4361) Four prepared class periods. Contents vary according to the needs and in-  
(4362) terests of the students.  
(4363)

60—123     **German**

- (4371) Four prepared class periods. Contents vary according to the needs and in-  
(4372) terests of the students.  
(4373)

**Senior Project**

- (9001) Under the guidance of a member of the German Department, a Senior has  
(9002) the opportunity to do special work in German. It may include supervised  
(9003) teaching of an elementary class or work of his own choice in a special field.

## Italian

10-20—0     **Italian**

- (4400) Five prepared class periods. Open to Seniors. Open to Uppers by permission of the instructor. A year-long accelerated introductory course covering two years in one. Because students usually come with a background in other languages, progress in speaking, reading, and grammar is quite rapid. (Mr. Pascucci)

## Russian

The Russian Department offers a course of six years of study. An accelerated sequence enables able students to complete four years' work in three, and receive four years of credit. There is also an accelerated course for Uppers and Seniors.

Since Russian is, indeed, more "foreign" to native speakers of English than the traditional languages of Western Europe, the complete exclusion of English during the first term is time consuming



and impractical. However, it is the policy of the Russian Department to attain the exclusive use of Russian in the classroom, instructional and conversational, no later than mid-way through the first year's study, and from the first meeting of the accelerated sequence (12). The entire program develops skill in speaking, aural comprehension, reading, and writing.

- 10—0 Russian  
(4500) Five prepared class periods. Open to Juniors, Lower Middlers, and Upper Middlers. A year-long elementary course in speaking, listening, reading, and writing. Texts: von Gronicka, *Essentials of Russian*; Bash, *Uchebnik Russkovo lazyka*, Part I; reference materials.
- 2—23 Russian (T2) (a two-term commitment)  
(4515) Five prepared class periods. Especially competent students will be recommended for this accelerated course at the conclusion of one trimester of *Russian 10*. Successful completion of two terms of 12 enables one to enter 22. Texts are essentially the same as those used in *Russian 10* and *Russian 20*.
- 20—0 Russian  
(4520) Five prepared class periods. Open to Seniors. Open to uppers by permission of the instructor. A year-long accelerated introductory course covering two years in one. Texts: von Gronicka, *Essentials of Russian*; *Graded Russian Readers* (Heath).
- 20—0 Russian  
(4530) Five prepared class periods. Completion of the elementary course with continued emphasis on active use. Texts: von Gronicka, *Essentials of Russian*; Bash, *Uchebnik Russkovo lazyka*, Part I; Reference materials, and selected literary materials.  
(Not offered in 1978-79.)
- 22—0 Russian  
(4540) Five prepared class periods. A year-long accelerated course open to students who have successfully completed *Russian 12* and to other qualified students with departmental permission. Successful completion enables students to advance to fourth-level courses. Texts and reading materials are essentially those of *Russian 20* and *Russian 30*.
- 30—0 Russian  
(4550) Four prepared class periods. Reading, conversation, and writing, based on a variety of authors. Text: S. Khavronina, *Russian as We Speak It* (Progress-Moscow); Bash, *Uchebnik Russkovo lazyka*, Part 2, and selected Soviet literary materials.
- 123 Russian  
(4561) Four prepared class periods. Fall Term, further work in reading, conversation, and writing. Texts: L. Muravyona, *Verbs of Motion in Russian*  
(4562) (Progress-Moscow); and selected Soviet literary materials.  
(4563)

Winter Term, THE SOVIET PRESS. A view of the Soviet system as reflected in the media. The text is a subscription to a major Soviet newspaper.

Spring Term, SOVIET PROTEST LITERATURE. A view of protest in the Soviet Union as seen through the works of Zamyatin, Solzhenitsyn, Tertz, Daniel, Yevtushenko, Okudzhava, Bulgakov, and others. Authors vary according to needs and interests of the students.

- 50—123 Russian  
 (4571) Four prepared class periods. Contents vary according to the needs and  
 (4572) interests of the students.  
 (4573)
- 60—123 Russian  
 (4581) Four prepared class periods. Contents vary according to the needs and  
 (4582) interests of the students.  
 (4583)
- Senior Project  
 (9001) Under the guidance of a member of the Russian Department, a Senior has  
 (9002) the opportunity to do special work in Russian. It may include supervised  
 (9003) teaching of an elementary class or work of his own choice in a special field.

*For courses in translation, see the Interdisciplinary section.*

## Spanish

The Spanish Department offers a sequence of four years; able students, by accelerating after the first year, may complete five courses. The aim is to have the students understand the language and speak it fluently. Spanish is used constantly in the classroom. The students learn to read and write the language with ease, and are given a comprehensive introduction to the literature and culture of Spain and Hispanic America.

- 10—0 Spanish  
 (4600) Five prepared class periods. Making use of the audio-lingual approach the course stresses understanding and speaking. A minimum of English is used in the classroom. The basic texts are: *Español: A Descubirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill) and *Cuaderno de Ejercicios*, by Schmitt, Woodford and Marshall (McGraw-Hill). They are supplemented by language laboratory practice and other audio-visual materials. Exercises and reading and writing are introduced after the student has acquired confidence in oral expression.

- 0A—0 Spanish**  
(4610) Five prepared class periods. This course begins Winter Term. Designed for students who may profit from a more gradual pace in foreign language study, the course aims to enable the students to better assimilate the structure of the language and to acquire acceptable patterns of speech. Eligibility for this course is determined by an agreement reached by the student and the foreign language teacher in consultation with the chairman of the foreign language department involved. Employing a variety of materials, the syllabus for the course will closely follow that of *Spanish 10*.
- 20—0 Spanish**  
(4620) Five prepared class periods. Open to Seniors. A year-long accelerated introductory course covering the work of the first two levels of the normal sequence. The basic texts are *Español en Español*, by A.A. Graupera and F. Pace (Van Nostrand Reinhold Co.); *Gramática Española de Repaso*, by F. Ugarte (The Odyssey Press), and selected readings. Past readings have included such books as: *Cuentos Americanos*, ed. D.D. Walsh (Norton).
- 15—0 Spanish**  
(4630) Five prepared class periods. For new students who have been exposed to Spanish but who are not fully qualified for *Spanish 20*. The course stresses the oral use of the language. Outstanding performance in this course qualifies the student for *Spanish 22* or *Spanish 30*. Text: *Español en Español*, by A.A. Graupera and F. Pace (Van Nostrand Reinhold Co.) and selected readings. Past readings have included: *Cuentos Americanos*, ed. D.D. Walsh (Norton).
- 20—0 Spanish**  
(4640) Five prepared class periods. A continuation course that emphasizes speaking, reading, simple theme writing, and vocabulary building, including the use of synonyms and antonyms. Oral fluency is stressed in accordance with the principles of the audio-lingual method. The basic text is: *Español: A Sentirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill). Readings beyond the basic text are selected to meet the needs of each class.
- 22—0 Spanish**  
(4650) Five prepared class periods. Open to students who have completed *Spanish 10* with honors and those who can earn honors through the Fall Term of this course. It covers the equivalent of the material of *Spanish 20* and *30*. Successful completion enables a student to enter *Spanish 40* or *42*. The basic texts are: *Español: A Sentirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill); *Cuentos De Hoy*, by González (NTC); *Olvida Los Tambores*, by Diosdado and Rubio (Independent School Press); and selected readings. In Spring Term the students read and stage a one act play in Spanish.
- 0A—0 Spanish Language Review**  
(4660) Four prepared class periods. For students who have successfully completed *Spanish 20*, but have need of further reinforcement in basic language structures. In addition to an intermediate grammar text, readings are selected according to the needs of the students.

- 31—123 Aspectos de la cultura y civilización del Mundo Hispánico**  
 (4671) Four prepared class periods. An intermediate course which continues to  
 (4672) develop oral and aural skills, as well as facility in written composition  
 (4673) through a social-studies approach to the culture and civilization of the  
 Hispanic world. In the previous courses, the student must have shown a  
 strong ability for self-expression and an interest in historical and cultural  
 themes.
- 32—123 Spanish**  
 (4681) Four prepared class periods. An intermediate course which continues  
 (4682) to develop oral and aural skills, as well as facility in written expression.  
 (4683) Class discussion is based on representative works of literature to be found  
 in the Spanish speaking world.
- 35—2 Winter Term in Mexico**  
 (4692) Students enrolled in a Spanish course (22 or higher) may elect to spend the  
 Winter Term in Mexico, receiving one Trimester credit in Spanish. As is  
 the case with all off-campus projects, approval for participation in the  
 Winter Term in Mexico program is dependent on the student's not being  
 enrolled in any year-long courses (except in Spanish) and on the student's  
 not needing to take on-campus courses in order to meet diploma require-  
 ments. Final approval for participation in this program will be made by  
 the Dean of the Academy. During the Fall Term students who choose this  
 course will do special research under the direction of Mr. Couch and other  
 members of the department.
- 40—123 Spanish**  
 (4701) Four prepared class periods. The purpose of the course is to further the  
 (4702) student's interest in the Hispanic world through the study of its history and  
 (4703) literature. Students showing marked ability would be eligible to take the  
 A.P. examination in the Spanish language. Texts used in the past have  
 been: *Tesoro Hispánico*, ed. Lado et al. (McGraw-Hill); *El Burlador de*  
*Sevilla*, by Tirso de Molina (Taurus Ediciones); *Doña Bárbara*; by  
 Rómulo Gallegos (Fondo de Cultura Económica); *Repaso de Gramática*,  
 by Soto (Harcourt, Brace, Jovanovich).
- 42—0 Spanish**  
 (4710) Four prepared class periods. The course presupposes an extensive knowl-  
 edge of grammar and vocabulary and a fairly fluent ability in conversa-  
 tion. Constant use of the Spanish language in the classroom discussions  
 and written assignments is required. Particularly able students may take  
 the Advanced Placement Examination if they so desire. Texts: Representa-  
 tive works of Pérez Galdós, Unamuno, F. García Lorca, J.L. Borges, Pablo  
 Neruda, and supplementary titles chosen to support the study of these  
 major authors.
- 52—0 Spanish**  
 (4720) Four prepared class periods. The course is open to students who have the  
 equivalent of *Spanish 40* or *42*, or with the permission of the instructor.  
 This course prepares the student for the Advanced Placement Examination.  
 The emphasis of this course is based on a study in depth of two significant  
 authors each term. In the past the following texts have been used: *Cien*



*años de soledad, LaMalahora*, by García Márquez (Editorial Sudamericana, Buenos Aires); *Historia universal de la infamia*, by Borges (EMECE, Argentina); *En torno al poema*, ed. García Montoro and S.A. Rigol (Harcourt, Brace, World, Inc.); *Tres novelas ejemplares, y un prólogo*, by Unamuno (Austral); *Antología Esencial*, by Pablo Neruda (Losada); *Nazarín*, by Pérez Galdós; *Cinco Maestros*, by Coleman (Harcourt, Brace and World, Inc.); *Fulgor y Muerte de Joaquín Murieta*, by Pablo Neruda.

—123 Spanish

(4731) Four prepared class periods. Contents vary according to the needs and  
(4732) interests of the student.  
(4733)

Senior Project

(9001) Seniors who are taking advanced Spanish courses are eligible to do  
(9002) apprentice teaching in beginners classes during either the Winter or Spring  
(9003) Term under the guidance of a faculty member. Seniors may also undertake  
independent studies projects in Spanish under the direction of a faculty  
advisor.

## Music

The diploma requirement in Music for entering Juniors and Lower Middlers is one trimester of Music, which is satisfied by *The Nature of Music* (Music 20). This course is also a prerequisite for courses in the History and Appreciation category, but is not a prerequisite for the Applied category. Entering Upper Middlers must take a trimester course in Music or Art at the Academy; *Music 20* or its equivalent. Entering Seniors need not take a Music course. Exemption from *Music 20* as a prerequisite is granted on the basis of an exam and/or by permission of the Department Chairman. However, there is no exemption from the Music diploma requirement.

## Applied

10—1 Beginning Instruments

(6101) Three prepared class periods. Open to Juniors, Lower Middlers, and Upper  
10—2 Middlers. Each section of instruments meets three times a week. On non-  
(6102) class days individual practice is required. Each section is taught separately  
10—3 without mixing woodwinds, brass, or strings. After completion of the  
(6103) course, a student should be able to progress to individual private  
instruction. Instruments taught: flute, clarinet, trumpet, trombone, tuba,

and orchestral strings. Limited enrollment.

A fee of \$10 per term is charged for rental of school-owned instruments.

**11—123 Recorder Ensemble**

- (6111) Meeting four times a week, with outside preparation. Prerequisite: *The*
- (6112) *Nature of Music (Music 20)*, or permission of the instructor. Open to all
- (6113) classes.

This course is designed for the continuation of recorder skills developed in *Music 20*.

**12—123 Brass Ensemble**

- (6121) Meeting three times a week, with outside preparation. Open to all classes.
- (6122) Open to qualified intermediate or advanced players by permission of the
- (6123) instructor. The group has an opportunity to perform in Chapel and in other concerts. The ensemble is made into different types of groups, such as trios, quartets, quintets, and double brass choirs, to perform Renaissance, Baroque, and contemporary brass literature.

**13—123 Woodwind Ensemble**

- (6131) Meeting three times a week, with outside preparation. Open to all classes.
- (6132) Open to qualified intermediate or advanced players by permission of the
- (6133) instructor. The ensemble is organized to allow a unique and comprehensive experience in the study and performance of chamber music repertory, in varied sizes of ensembles. Playing chamber music is an essential part in the development of the woodwind student.

**14—123 String Ensemble**

- (6141) Meeting three times a week, with outside preparation. Open to all classes.
- (6142) Open to qualified intermediate or advanced players by permission of the
- (6143) instructor. These students find a wealth of fine music written for various combinations of instruments, ranging from the relatively easy to the very difficult. Over the centuries composers have considered the strings a favored group. Chamber music is a particularly rewarding experience and is valuable training for all string students.

**15—123 Fidelio Society**

- (6151) Pass/Fail. Three prepared periods. Open to all classes. This small group of
- (6152) mixed voices is selected from the *Chorus (Music 17)*. It performs on
- (6153) numerous occasions throughout the year both on *Chorus* programs and on its own. Its repertoire includes music of all types, early and modern, sacred and secular. Membership is by audition and is conditional upon good standing in the *Chorus*.

**16—123 Band**

- (6161) Four prepared periods. Open to all qualified students. Tryouts are held
- (6162) any time before the beginning of a term to test the student's ability and to
- (6163) arrange for seating. Volunteers from all classes who are not enrolled for credit are urged to join, on an extra-curricular basis. There are some school-owned instruments available for student use. All types of music for wind ensemble are rehearsed. It includes marches as well as classical, popular, and show music. Much sight reading is done, and at least one public concert per term is given.

## -123 Chorus

171) Four prepared periods. Open to all qualified students. The *Chorus* is the  
 172) Academy's major singing group, comprised of mixed voices, and performs  
 173) a variety of choral works, both sacred and secular. No previous choral  
 experience is necessary; just a desire to work hard and enjoy a unique  
 choral experience.

## -123 Chamber Orchestra

181) Four prepared class periods. Open to all classes. Most of the music played  
 182) is for string orchestra; the best winds in the school are invited to join for  
 183) larger works. One concert a trimester is regularly scheduled and the  
 orchestra also plays at least once a trimester in the Sunday Chapel service.  
 The membership includes several students from the community who want  
 orchestral experience that is not available in their own schools, and several  
 members of the faculty. While *Chamber Orchestra* may be elected as a  
 credit-bearing course, it is also an activity in which all are invited to  
 participate.

## -123 Private Instrumental and Vocal Lessons

191) Weekly instruction in keyboard, orchestral, and band instruments, in  
 192) classical guitar, or in voice. For private instruction, covering piano, organ,  
 193) voice, classical guitar, orchestral and band instruments, there is a separate  
 charge of \$65 per term for half-period instruction, or \$130 per term for  
 full-period lessons and a nominal fee for the use of practice pianos and  
 organs. A fee of \$15 per term is charged for private rental of school-owned  
 instruments.

## 0-1 The Nature of Music

201) Five prepared class periods. This course is designed to give a general back-  
 0-2 ground in the history, theory, and practical aspects of music. Music from  
 202) its earliest sources to the present is examined. Also, the role of music and  
 0-3 the arts in each of its cultural stages is studied. Students receive some first  
 203) hand experience with musical instruments. No previous experience in music  
 is required.

## ory and Appreciation

The following sequence of courses in the history and literature of  
 music is team-taught by members of the department. The sequence  
 takes one and two-thirds years to complete. Each course is term-  
 contained.

*The Nature of Music (Music 20)* is a prerequisite for all courses in  
 this section.

## 1-2 Developing Musical Skills

212) Four prepared class periods. Open to all classes. A course in musical  
 1-3 analysis, incorporating listening skills, eurhythmics (study of rhythm and  
 213) motion) and continuing instrumental work (recorder or guitar) begun in

*Music 20.* The class will look at, in detail, a few works of its own choosing, and engage in a variety of class projects designed to broaden each individual's musical experiences.

**22—1 Medieval and Renaissance Music (to 1600)**

(6221) Four prepared class periods. Open to all classes. This course surveys what is commonly called Early Music, from the earliest known chant to the fully developed Renaissance motet and madrigal. Much of the music from this period was written "for the glory of God." But the secular side of things is considered, too, especially the rise of instrumental music (for harpsichord, recorder, etc.) and the madrigal, with its texts of love, nature, and humor. (Not offered in 1978-79.)

**23—2 Baroque Music (1600-1750)**

(6232) Four prepared class periods. Open to all classes. This course surveys music from the first opera to the late works of Bach and Handel. The grand, dramatic styles known as Baroque are seen in its most lavish form, opera, in choral masterpieces such as the *Messiah*, in sacred music such as Bach's organ works, and in instrumental music such as the Brandenburg Concertos. The settings for this music, from the relatively humble churches of Bach's Leipzig to the magnificent Palace of Versailles are considered. (Not offered in 1978-79.)

**24—1 Classical Music (1750-1820)**

(6241) Four prepared class periods. Open to all classes. In this relatively short period grew and flourished what is considered the Classical style of Western music, and with it came the newly-created symphony. Haydn, Mozart, Beethoven, and others wrote in this new form as well as composing concertos, sonatas, string quartets, and some of the older forms, such as opera and religious music. The historical backdrop to this music—the Enlightenment, the Revolution (American and French), and the Napoleonic Era—are also considered.

**25—2 Romantic Music (1820-1900)**

(6252) Four prepared class periods. Open to all classes. The Romantic period is an era of great social, economic, and political change. From the later works of Beethoven through the works of Debussy, we trace the development and change of the "classical" structures. Schubert, Schumann, Mendelssohn, Brahms, Chopin, Liszt, Berlioz, Wagner, Mahler and Strauss are some of the composers that are examined.

**26—3 Twentieth Century Music (1900-Present)**

(6263) Four prepared class periods. Open to all classes. The twentieth century is a period of abstraction, and reaction, in art and music. New rhythmic and harmonic languages were developed and used. This course traces the development of the twentieth century style through the works of Debussy, Ravel, Scott Joplin, Stravinsky, Bartok, Ives, Schonberg, Partch, and other major figures in the twentieth century music world.



- 123 **Independent Study in the History and Literature of Music**  
 271) Four prepared class periods. Open to Upper Middlers and Seniors. A  
 272) student who has taken at least one of the other courses in this sequence  
 273) may, with the permission of the instructor, pursue an independent course  
 of study in either a particular type of music or a particular period of  
 music. This should be related to the period or periods covered in the stu-  
 dent's previous course work in this sequence.

- 8-1 **Jazz**  
 281) Four prepared class periods. Open to Upper Middlers and Seniors. A study  
 8-2 of the history of classic jazz, dating back to its roots in Africa, its devel-  
 282) opment in New Orleans, its spreading to New York and Chicago, and its  
 8-3 influence on music today. A survey of ragtime, blues, Dixieland, fox-trot,  
 283) on through the big band era of the thirties, concluding with the jazz rock  
 of today. A study of the influence and contributions of the major personal-  
 ities such as W.C. Handy, Jelly Roll Morton, Louis Armstrong, Basie,  
 Whiteman, Gershwin and the rest of the greats.

- 9-1 **Popular Music in America**  
 291) Four prepared class periods. Open to all classes. A course investigating  
 9-2 popular music and its significance in American culture. A variety of styles  
 292) and genres will be studied, including the American popular song, rhythm  
 9-3 and blues, music for television, music for the film, country music, Rock 'n  
 293) Roll, and Hard Rock.

## ory

- 123 **Orchestration and Conducting**  
 321) Hours to be arranged. Open to Upper Middlers and Seniors. A compre-  
 322) hensive study of orchestral instruments and their use in this organization.  
 323) This course is designed to teach arranging for each instrument. Also, basic  
 conducting skills are covered.

- 3-1 **Theory of Music I**  
 331) Four prepared class periods. Open to Lower Middlers, Upper Middlers,  
 and Seniors. This course offers an introduction to harmonic progression,  
 triads, modes, rhythmic coordination with dictation. Some original work is  
 also expected.

- 4-2 **Theory of Music II**  
 342) Four prepared class periods. Open to Lower Middlers, Upper Middlers,  
 and Seniors. Prerequisite: *Theory of Music I* or permission of the  
 instructor. This course deals with harmonic progressions, modulations,  
 figure bass, and an introduction to counterpoint and harmonic analysis.

- 5-3 **Theory of Music III**  
 353) Four prepared class periods. Open to Lower Middlers, Upper Middlers,  
 and Seniors. Prerequisite: *Theory of Music II* or permission of the  
 instructor. This course includes advanced figure bass, more complex  
 chords, and a brief introduction to nineteenth and twentieth century  
 techniques.

36—123    Electronic Music

- (6361)    Four prepared class periods. Prerequisite: *The Nature of Music* (Music 20)  
(6362)    or permission of the Department Chairman. A course for the benefit of  
(6363)    those who seek to expand their domains of creativity by understanding  
            and utilizing the conceptual approaches inherent in electronic music syn-  
            thesizers and related equipment. Using a practical approach, the course  
            begins with the care and feeding of the tape recorder and proceeds to the  
            functioning and operation of electronic music modules. A lab fee of \$15.00  
            is charged for the use of the synthesizer.

40—123    Advanced Techniques in Electronic Music

- (6401)    Four prepared class periods. Prerequisite: *Electronic Music* (Music 36). A  
(6402)    course designed for the continuation of the skills and techniques developed  
(6403)    in Music 36. A lab fee of \$15.00 is charged for the use of the synthesizer.

*See also French Music in French in the Interdisciplinary section.*

## Performing Arts

All courses are electives, open to Seniors, Uppers, and Lower, but to Juniors only with permission of the instructor, unless otherwise noted. Courses in theatre are designed for students who wish formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work on plays. A variety of experiences is available: some courses are performance-oriented; some are theory-oriented; some are both. Theatre students are encouraged—but not required—to supplement their classwork by participating in any of the numerous productions mounted each year, or they might be invited to join the Andover Touring Company, which for five years has become part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life*, and *A Thurber Carnival*.

### Theatre Courses

20—1    Introduction to Theatre

- (6501)    Four class periods. Open to all classes. Using both classical and modern scripts to provide a range of dramatic experiences, the class studies plays in depth and detail to see how they might be acted, directed, and staged, beginning with script analysis and ending with the staging of scenes and the design and construction of sets and props. Playwrights who might be studied are Miller, Wilder, Shakespeare, Guare, and Brecht, but the choice of plays depends largely upon the interests of the students. The course is

intended for students with limited experience in high school theatre and serves as an overview of the major areas of theatre: acting, directing, design, and lighting, each of which might be studied in depth in subsequent courses.

### 21—1 Introduction to Acting

6511) Four class periods. Open to all classes. This course is designed for students with little or no acting experience. By doing exercises, reading, improvisations, and scenes from a wide variety of sources (including perhaps Shakespeare, musical comedy, modern plays, and short stories), a student who is curious about the theatre may determine whether he or she has ability or interest in acting. The emphasis is on the variety of acting experiences rather than on a polished final product. Videotape and tape recorders are available for use as study tools.

### 22—2 Public Speaking

6522) Four class periods. Open to all classes. The course has a dual objective: to learn how to speak easily in front of others, and to learn how to speak English well. Students give prepared and extemporaneous speeches on a variety of topics while studying diction, pronunciation, projection, and other techniques of public speaking.

### 23—2 Acting Workshop

6532) Four class periods. A theoretical and practical consideration of various acting styles, both classical and contemporary. For students with some acting experience, this course employs acting exercises, theatre games, improvisation, and scenes from plays to guide the actor toward a greater understanding of his responsibility on stage: to see to what degree he may remove himself from himself.

### 24—3 Scene Study

6543) Four class periods. Prerequisite: *Theatre 20* or *21*, or significant production experience. For serious, self-motivated students of acting who wish to study one play and one character in depth, this course might be taken in conjunction with the playing of a role in a musical or dramatic production.

### 25—1 Directing Workshop

6551) Four class periods. Dedicated to the idea that the director's job is the most complex in theatre, the course is designed for students who have had some acting experience and who now wish to study the art of directing. Class members experiment with manageable scenes and short plays which they direct; they examine books on the subject (such as Peter Brook's *The Empty Space* and Cole and Chinoy's *Directors on Directing*) and play scripts, and various styles of direction, interpretations of scenes, and types of drama from classical and contemporary periods. Emphasis is placed on the responsibilities of the director: to his actors, his audience, and his playwright.

### 26—1 Stagecraft

6561) Four class periods. Open to all classes. Through practical experience in designing, building, and lighting, for plays currently being produced, students learn the elements of stagecraft, including set construction, stage

rigging, and the use of lighting instruments and gels. Text: Parker and Smith, *Scene Design and Stage Lighting*.

**27—3 Play Production**

(6573) Four class periods. Open to all classes. Prerequisite: any other Theatre course or significant production experience. This course is oriented toward a performance at the end of the term of a group acting, directing, and design project. The specific text depends somewhat upon the ability of the group; recent choices have been works such as *The Crucible*, *The Skin of Our Teeth*, and *The Time of Your Life*.

**28—3 Shakespearean Workshop**

(6583) Four class periods. Open to all classes. An intensive study of several plays by Shakespeare, with the major emphasis on the spoken word. Close attention is given to pronunciation, diction, rhythm, dynamics, and interpretation. Students read aloud, act out, memorize, present, and record scenes and soliloquies.

*See English 508 for a course in Modern Playwrights.*

**29—2 Playwriting**

(6592) Four class periods. Each student is expected to write at least one one-act play in addition to certain exercises in monologue, dialogue, and scene setting. The class reads aloud from students' work-in-progress while studying the formal elements in plays by Sophocles, Shakespeare, Goldsmith, Ibsen, Williams, Miller, Becket, and Ionesco, and selected literary criticism focused on drama.

**31—123 History of Theatre**

(6611) An overall view of theatre. Literature from each period; lectures; slides;  
(6612) performances; short essays. A sequential plan is recommended; students  
(6613) are advised to take the Fall Term unit before doing either of the others.  
Prerequisite: prior courses or experience in theatre and permission of instructor.

**Fall Term:** "The Roots of Theatre" Beginning with ancient myth and ritual, the course traces theatre through Greek and Roman comedy and tragedy, the medieval mystery and morality plays, the Elizabethan Age, culminating in Shakespeare. Readings: *Lysistrata*, *Antigone*, Plautus, *Everyman*, Jonson, Shakespeare, *Faustus*.

**Winter Term:** "Centuries of Change" Beginning with Shakespeare (but reading different plays from those of the Fall Term), the course examines Restoration Comedy, the Eighteenth Century, and Victorian Literature to 1875. The focus is on drama written in English. Readings: Shakespeare, Congreve, Sheridan, *The Country Wife*, *The Way of the World*, *The Beggar's Opera*, *She Stoops to Conquer*.

**Spring Term:** "The Fabulous Invalid" Theatre thrives, despite severe obstacles during its history. This course considers such influences as Ibsen, Shaw, Stanislavsky, Chekhov, Olivier, Gielgud, Brecht, *The Angry Young Men*, *The Royal Shakespeare Company*, the National Theatre of Great Britain. (Mr. Bellizia)



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## —123 Introduction to Dance

- 6701) Four prepared class periods. A formal course in movement and composition which introduces the serious student to the vocabulary and other elements of dance through active participation. The emphasis is not ultimately on public performance, but on the process and the discipline of modern dance.
- 6702)
- 6703)

## Philosophy and Religious Studies

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundations of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered in three clusters corresponding to the three quests and at a variety of levels. In each cluster an introductory course (20's) is supplemented by courses emphasizing specific issues (40's) and by courses emphasizing high level theory (50's). All courses are elective and involve four prepared class periods.

### I. The Search for Meaning

- 30—3 Introduction to Non-Western Religions
- 20—1 Biblical Narrative: the Personal Dimension
- 31—1 Memory and Manuscript: the New Testament
- 31—2
- 32—2 Post-biblical Jewish Thought
- 40—2 Religion and Culture
- 40—3
- 41—1 Views of Human Nature
- 41—3
- 50—2 Existentialism

## II. The Search for Justice

- 21—3 Values: Discernment and Decisions
- 42—1 Ethical Issues in the Sciences
- 42—3
- 43—1 Law and Morality
- 43—2
- 43—3
- 44—2 Non-violence in Theory and Practice
- 45—1 Ethics and Education
- 51—2 In Search of Justice: Socrates to Marx

## III. The Search for The Foundations of Knowledge

- 46—2 Proof and Persuasion
- 52—1 The Great Philosophers: Knowledge and Reality
- 52—3

### 20—1 Biblical Narrative: The Personal Dimension

- (7201) Four prepared class periods. Open to Juniors, Lower and Upper Middlers, and Seniors. Adam and Eve, Cain and Abel, Abraham and Isaac, Jacob and Esau, Rachel and Leah, Joseph and his brothers, David, Solomon, Elijah, Esther—these and numerous other Biblical names are closely associated with our Western religious traditions. Many of these are prototypical religious figures, with a sense of the Divine as well as of personal mission. A few are rather the reverse, oblivious to the Divine dimension and opposers of the heroes and heroines. Yet all of them are distinct human personalities engaged in adventures and struggles, loves and rivalries, feelings of joy and of deep sorrow. It is this human dimension which, together with the mythic and personal meanings today, is the focus of this course. (Rabbi Gendler)

### 21—3 Values: Discernment and Decisions

- (7213) Four prepared class periods. Open to Juniors and Lower Middlers. Rooted in concrete issues and experiences of everyday living this course provides an introduction to the skills of discernment. Drawing case studies from literary and topical sources as well as the boarding school experience, the class will critically investigate the often unspoken presuppositions that give rise to moral decisions. (Dr. Avery)

### 30—3 Introduction to Non-Western Religions

- (7303) Four prepared class periods. Open to Lowers, Uppers, and Seniors. This course provides a brief introduction to four of the world's major religions. Islam, Hinduism, Buddhism, and Taoism. Huston Smith's classic, *The Religions of Man*, is the text. Additional readings are drawn from basic religious texts of the traditions as well as from such literary treatments as those by Hesse. (Rabbi Gendler)

### 31—1 Memory and Manuscript: the New Testament

- (7311) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. Sacred writings make present to a people those things they most need to remember. This course provides a critical introduction to the
- (7312)

origin, purpose and interpretation of the writings of the New Testament. (Dr. Avery)

32—2 **Post-Biblical Jewish Thought**

(7322) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. A variety of selections are read and discussed, beginning with the classical Rabbinic age (contemporary with Jesus) and continuing through medieval philosophers and commentators, poets and mystics, Hasidic story tellers, modern thinkers, as well as the contemporary Jewish "counter-culture." Among the questions to be dealt with are: reason and revelation as guides of human conduct; views of human nature; hopes and Messianic expectations; the mystical and the rational in daily life; tradition and spontaneity in religious continuity; God and the realm of the interpersonal. (Rabbi Gendler)

40—2 **Religion and Culture**

(7402) Four prepared class periods. Open to Upper Middlers and Seniors and to Lower Middlers with permission of Instructor. What is religion? What relationship does it have to man's creativity? Is it a response to the needs of the individual or society's needs? Or is it a response to something beyond man? The religious phenomenon is examined from the psychological, sociological, philosophical and theological points of view. (Dr. Avery)

41—1 **Views of Human Nature**

(7411) Four prepared class hours. Open to Upper Middlers and Seniors, and to Lower Middlers with permission of Instructor. A critical examination of existentialism, psychology, biology, anthropology and transcendentalism in light of the answers they provide to the following questions: Does man have a characteristic nature? What are his basic needs, rights, obligations and values? Is man free? Is man responsible for his actions? Given an understanding of man, how should we structure society to satisfy his needs and take advantage of his potentials? Readings: Jean-Paul Sartre, *Existentialism is a Humanism*; Sigmund Freud, *Civilization and Its Discontents*; B.F. Skinner, *Beyond Freedom and Dignity* and *Walden Two*; Richard Leakey, *Origins*; Sam Keen, *Apology for Wonder*. (Mr. Hodgson)

42—1 **Ethical Issues in the Sciences**

(7421) Four prepared class periods. Open to Upper Middlers and Seniors. The growth of the human sciences and their corresponding technologies has increased human control over and thus responsibility for the development of mankind. The course addresses particular issues of life and death, genetic engineering, behavior modification, human research and the allocation of medical resources. At the same time the underlying issue of the relationship between science and ethics is considered. (Dr. Avery)

43—1 **Law and Morality**

(7431) Four prepared class periods. Open to Upper Middlers and Seniors, and to Lower Middlers with permission of Instructor. A critical examination of an intricate web of problems which arises out of the relationship between law and morality. Questions of concern include: Does society have the right to restrict the behavior of an individual? On what, if any, grounds, are such restrictions justifiable? To what degree should society in-

corporate "popular" morality into law? Is an individual ever morally justified in breaking the law? If so, under what circumstances and in what fashion? Readings include selections from Plato, Hobbes, R.P. Wolff, Lord Patrick Devlin and Martin Luther King, Jr. Case studies on abortion, pornography, racial and sexual discrimination and civil disobedience. (Mr. Hodgson)

44—2 Nonviolence in Theory and Practice

(7442) Four prepared class periods. Open to Upper Middlers and Seniors. The militarily most destructive century in human history, our twentieth century, has also been one in which such men as Gandhi and Martin Luther King, Jr., have successfully applied nonviolence to conflict situations. What is the theory of this approach to human conflict? What are some of its psychological assumptions? What is its religious and human significance? By what means does it operate? What are its prospects for the age ahead? We shall use case histories, the testimonies of those directly involved in such struggles, films, critical and theoretical studies in trying to clarify and comprehend some of these elements of nonviolence. Readings include Joan Bondurant's *The Conquest of Violence* as well as writings of Gandhi and King. (Rabbi Gendler)

45—1 Ethics and Education

(7451) Four prepared class periods. Open to Upper Middlers and Seniors. Education necessarily involves judgments of value and as a topic continues to arouse much moral fervor. This course examines the ethical presuppositions of some theories of education, considers some specific issues and in particular asks the question "What values, if any, should be taught?" The course provides an opportunity for the student to grow in awareness of and become more actively engaged in the value judgments that form his/her own educational experience. (Dr. Avery)

46—2 Proof and Persuasion

(7462) Four prepared class periods. Open to Upper Middlers and Seniors, and to Lower Middlers with permission of Instructor. A practical introduction to informal logic and to the philosophical study of language. Some of the questions raised are: What is the difference between a good argument and a poor one? What are the common fallacies of thought? What are the limitations of logic? What is the meaning of "meaning" and the truth about "truth?" The course stresses the development of individual skills in argument and includes a critical examination of the patterns of thought one encounters every day in magazines, newspapers and on television. (Mr. Hodgson)

50—2 Existentialism

(7502) Four prepared class periods. Open to Upper Middlers and Seniors. The term "existentialism" covers a broad range of attitudes and values that are joined together by an emphasis on human existence. The authors brought together in its name share a characteristics concern for the problems of meaning, identity and choice that confront men and women in everyday life. The lectures, discussions and readings are designed to help us locate and express these problems as they confront each of us in our own lives and to assist in understanding and resolving them by drawing on the experiences and insights of the major existentialist thinkers. Readings: Nikos



Kazantzakis, *Zorba the Greek*; Friedrich Nietzsche, *The Genealogy of Morals*; Jean-Paul Sartre, *No Exit* and *Being and Nothingness*; Martin Heidegger, *What is Philosophy*; Søren Kierkegaard, *The Sickness unto Death*; Martin Buber, *I and Thou*. (Mr. Hodgson)

- 51—2 **In Search of Justice: from Socrates to Marx**  
 (7512) Four prepared class periods. Open to Upper Middlers and Seniors. God, emotion, logic, social necessity and economic laws have all been invoked as the final arbiter of justice. The class will examine the major answers to the problem developed by Plato, Aristotle, Kant, Mill, Marx and others. The course aims to assist critical awareness of the ultimate criteria of one's own evaluations and those of others so that she/he be better equipped to make her/his own contribution to the never-ending search for justice. (Dr. Avery)
- 52—1 **Great Philosophers: Knowledge and Reality**  
 (7521) Four prepared class periods. Open to Upper Middlers and Seniors. The  
 52—3 great philosophers offer us a variety of serious and systematic attempts  
 (7523) to answer a set of difficult questions that perennially face mankind: What is the good life? What are the sources of human experience? What is the relationship between my mind and my body? Does God exist? What is the relationship between reason and reality? This course critically evaluates the responses of Plato, Aristotle, Descartes, Hobbes, Berkeley, Hume, Kant and Mill in an attempt to show the continuing importance of both the questions and their answers. (Mr. Hodgson)

*See also Biblical and Classical Mythology in the Interdisciplinary section.*

## ysical Education

All Juniors and new Loweres are required to elect one trimester of *P.E. 10* in addition to their regular athletic commitment.

- 10—1 **Physical Education**  
 (9201) Pass/Fail. Limit of fifteen students per section. Four morning class periods  
 10—2 per week. The program consists of four phases:  
 (9202) 1. Track — a run, jump, throw, self-developing program;  
 10—3 2. Ropes — elementary gymnastics and climbing;  
 (9203) 3. Physical Fitness — an introduction to physical conditioning and weight  
 training  
 4. Drownproofing — a survival-technique swim course.  
 Two periods per week are spent on Drownproofing and two on the other three phases

## Psychology

The Psychology Department offers four term-contained courses as electives.

**10—1 Human Awareness**

- (7101) Pass/Fail. Two double periods. For Juniors and Lower. Limit of fifteen students per section. A course in human awareness in which the students explore the relationship of their thoughts and feelings to their behavior with other people. Topics explored cover a wide variety of dilemmas encountered in all group experience including dilemmas of membership, isolation, communication, and leadership. These topics are related directly to the experience of living in a boarding school and to the feelings and frustrations that develop in making the personal choices and setting the personal boundaries that are a part of being an individual in a complex world.

(Not offered in 1978-79.)

**30—1 Human Relations**

- (7111) Pass/Fail. Two double periods. For Uppers and Seniors. Limit of fifteen students per section. This is a course in Social Psychology. Its topic for study is human behavior in small groups. Human beings do most of their living, working, and playing in small groups ranging in formality from family to classroom groups. The relationships among the members of these groups develop through similar stages and by common processes which determine to an important extent the effectiveness of the group in achieving its goals. These stages and processes are a response to two basic human needs: the need for belonging and community, on the one hand, and the need for separateness and individual identity, on the other.

The classroom group provides students with a laboratory in which to observe group process. Members read articles in the professional literature and write papers on topics that reflect upon their own experience.

(Mrs. Kubler-Merrill and Dr. Roehrig)

(Not offered in 1978-79.)

**31—2 Human Sexuality**

- (7122) Four prepared class periods. An interdisciplinary course for Uppers and Seniors designed to help students understand the facts of their own sexuality from the biological, social, and psychological points of view. The format of the course is a combination of reading, lecture, discussion, writing and examination. In addition to the biological facts, topics to be covered include misconceptions and mythologies of sexual growth and development, important features of masculine and feminine psychology as they relate to sexual behavior, the relationships between attitudes and beliefs, and sexual conduct.

(Not offered in 1978-79.)

## 2—1 Introductory Psychology

(131) Four prepared class periods. For Upper Middlers and Seniors. An introductory survey of the diverse methodologies and philosophies that fall into the broad category of "Psychology." The aim of the course is to introduce the student to the many varieties of Psychological inquiry. Some of the areas covered are: Conditioning and Learning, Cognitive Development, Animal Behavior, Social Psychology, and Personality Theory. The format of the course is a combination of lectures and discussion. A basic text, *Psychology Today: An Introduction*, is used, as well as Calvin Hall's *A Primer of Freudian Psychology* and supplementary reprints from research journals.

(Not offered in 1978-79.)

## Science

The diploma requirement in science is a year-long course in a laboratory science at the 20 level or higher. Juniors and Lower Middlers may take a three or four year sequence of science courses which will provide a general cultural understanding of science and give a good background for the continuing study of science in college. Courses at the 40 level or higher involve work beyond the laboratory requirement in science. Courses at the 50 level are at the college level and prepare students for the Advanced Placement examinations. Students who do well in these examinations may be granted credit or advanced standing by the college they attend.

In general students are encouraged to take a variety of courses in physical and biological science, and not to specialize in a single branch of science. For students with special interests individual project work for credit is open to Seniors. Such projects are on a Pass/Fail basis and are arranged through the office of the Dean of the Academy.

The science courses numbered 10-19 are open to Juniors and Lower Middlers. Able Juniors and Lower Middlers may take upper level courses with the permission of the department chairman.

## Science

### Science

0—0 Five periods, three prepared. A laboratory course in beginning physical science using an expanded version of a syllabus called "Introductory Physical Science." Students explore the nature of matter in its solid, liquid, and

gaseous forms. Analyses of mixtures and compounds, and a study of radioactivity lead to an atomic concept of matter. Many experiments are quantitative and require careful recording of data, drawing of graphs, and calculations of results. (Mrs. Whyte)

**Science Introduction to Biological Science**

11—3 Open to Juniors and Lower. Four prepared periods per week. This course is designed for students who have no background in chemistry and are planning to take *Biology 30* to meet the laboratory science requirement. Topics such as acid-base chemistry, bonding, shapes of molecules, the mole concept, and elementary organic chemistry will be covered. There will be laboratory work. (Dr. Minné)

**Science Introduction to the Geosciences**

12—2 Open to Juniors and Lower. Four prepared class periods. Laboratory work is accomplished during class periods and involves study of satellite and aerial photos, slides, maps and various specimens. Typical areas of study include volcanoes, fossils, earth resources, oceans, gemstones, crystals and earthquakes. (Dr. Wilson)

**Science Astronomy — The Solar System**

13—3 Four prepared class periods. The 1970's will certainly be called the era of planetary exploration. Even now, as our spacecraft search for life on Mars and send back pictures of Jupiter, other more ambitious missions are planned which will probe the mysteries of Saturn, Titan, Uranus and perhaps a comet. This course will study each planet in detail and then evaluate the theories for the formation of our solar system. Other topics for discussion will include the chemical evolution of life on earth, the future of the space program, and the observation of the night sky. Special sessions will be scheduled in the Phillips Academy observatory and a trip will be made to the planetarium at the Boston Museum of Science. This course is particularly recommended for those students who might be interested in taking *Astronomy 30* or *35* later. (Not open to students in *Physics 30*.) (Mr. Sarton)

**Science Introduction to Energy**

14—1 Open to Juniors and Lower. Four prepared class periods. This course concentrates on fossil fuels, nuclear power and solar energy, but there is some study of geothermal, wind, hydropower, batteries, fuel cells and house construction. Certain pollution problems will also be studied. There is some laboratory work during various class periods, and field work. (Dr. Wilson)

**Science Oceanography**

15—1 Four prepared class periods. This is an introductory science course designed primarily for Juniors and Lower who have not taken *Biology 30* or its equivalent. The 70% of our earth's surface comprising the oceans is examined from a number of physical, chemical, and biological perspectives. Accordingly, we investigate aspects of sea water chemistry, mechanisms of wave propagation and current generation, and interactions among the thousands of living organisms found in or near the sea. Films, slides, and at least two field trips visually complement the classroom portion of the course. (Mr. Willand)



- science 16—3 (8063) **Ecology**  
Four prepared class periods. Open to Juniors and Lower Middlers. The course is designed to introduce students to the basic concepts of ecology. The material offered explores the meaning of interdependence and interrelationships within environment; population dynamics; trophic levels and energy; adaptation; succession; and the impact of man upon his environment and some of the problems caused by his use and abuse of basic resources. Class material is coordinated with and reinforced by laboratory studies of population growth, computer programs to study environmental problems and pertinent field trips. One of the major objectives of the course is to develop within the student an understanding of and sensitivity to the balance and beauty of nature. (Mrs. Hawkes)
- science 17—2 (8072) **Introduction to Zoology**  
Three prepared classes and one unprepared double laboratory period per week. This is a one-term course designed for Juniors and Lower who have not taken *Biology 30* or its equivalent. A study will be made of the similarities and differences of the major animal divisions from the most primitive invertebrates to the most complex vertebrates. Areas of concentration will include the basic systems of each phyla (i.e., digestion and reproduction), as well as the ecological role and the evolutionary development of the organism. Lab periods will be used to develop techniques of dissection while studying the anatomy of animals from selected phyla. (Mr. Koolen)
- science 19—0 (8090) **Introduction to Physics**  
Four prepared class periods. This is an honors course for talented Juniors with a strong interest and background in science and mathematics. Students entering this course should have *mastered* a year of algebra as it is used profusely in solving word problems. There is laboratory work. Successful completion of *Science 19* prepares students for *Physics 30*. The text is *Physics* from the Physical Science Study Committee. (Mr. Apgar, Mr. Sarton)
- science 30—2 (8502) **Energy and the Future**  
Five prepared class periods. Open to Uppers and Seniors who have either completed or are completing the science requirement. This course is taught by faculty in the Science Division. Its purpose is to study energy in a modern biological, geological, physical-chemical and social context. While several fundamental aspects of science and energy are inspected, time is devoted to issues that transcend mere technology. The course of study considers fossil fuels, nuclear energy, solar, geothermal, wind, tidal, and other sources of energy, biological and ecological aspects of energy, public health, risks, costs, governmental policies and programs. The intent is that through the unifying theme of Energy, students can grasp a broader understanding of their world, as well as perhaps a further glimpse into the present and future of man. (Mr. Cone, Mr. Sarton, and Dr. Wilson)
- science 35—3 (8553) **Applied Human Biology**  
An interdisciplinary course for Upper Middlers who have had *Biology 30* or its equivalent. It is a unique course led primarily by a group of veteran Seniors who were enrolled in it the previous year. Thus, it is self-

perpetuating. Participating Seniors may apply for Independent Study credit.

Topics covered will vary from year to year, depending upon current interests, but are related to practical areas of human biology such as human sexuality, drug use and abuse, sports psychology, nutrition, emergency first aid, birth control, and sports medicine. Informed students, faculty and staff members, and individuals from outside the community are invited to present lectures and/or lead seminars.

The course is coordinated by a member of the Biology Department. Enrollment is limited and requires written permission of the Coordinator.

## Biology

### 30—0 Biology

(8100) Three prepared periods and one double, unprepared laboratory period. The course stresses the unity of life, rather than the diversity, by emphasizing the function common to all living things. It covers, in plants, animals, and microorganisms the fundamental principles of metabolism, including nutrition, gas exchange, transport, excretion, and homeostasis; responsiveness and coordination; reproduction, genetics, and development; the principles and history of evolution; and the principles of ecology.

The laboratory work includes training in the use of the compound and stereoscopic microscopes and other laboratory equipment. It requires careful observation, mastery of techniques, and accurate recording of results. Several laboratory periods are set aside for field trips featuring ecology and conservation. There is opportunity for work on individual laboratory projects.

### 44—1 Biology—Human Physiology

(8121) Prerequisite: *Biology 30* or its equivalent. Three prepared periods and one double unprepared laboratory period. The course is divided into two parts.  
(8122) First, an introductory section explaining the cellular processes in terms of interactions between molecules of known structure. Second, the major part  
(44—3  
(8123) of the course is a detailed consideration of how the body's coordinated functions (circulation, respiration, etc.) result from precisely controlled and integrated activities of specialized cells grouped together in tissues and organs. Laboratory work will consist of a detailed anatomical study of a representative mammal (cat or fetal pig). (Mr. Bastian and Mrs. Hawkes)

### 52—23 Biology (T2) (a two-term commitment)

(8195) (Formerly *Biology 45-23*.) Prerequisite: one year of Biology. Preference given to Seniors. Four prepared class periods and one double, unprepared laboratory period. In addition to a review of basic biology, new material is presented as the course progresses. The combination of review and new work prepares students for the Advanced Placement Examination of the College Entrance Examination Board. Admission to course by permission of Department Chairman *only*.

# nistry

## 5—0 Chemistry

(210) (Formerly *Chemistry 20-0*.) Prerequisite: Completion of *Mathematics 10* or the equivalent. For Lower Middlers and Upper Middlers. Three prepared periods and one unprepared, double laboratory period. The course includes a systematic study of matter and the changes it undergoes. Emphasis is placed on the reasoning involved in the development of modern theory and general concepts rather than memorization of descriptive chemistry. Laboratory work is closely related to topics covered in recitation.

## 0—0 Chemistry

(3220) Prerequisite: Completion of *Mathematics 20* or the equivalent. Three prepared periods and one unprepared, double laboratory period. The course is designed for students with more maturity and mathematical background than those taking *Chemistry 25*. As in that course, the modern theoretical framework of chemistry is emphasized, and the laboratory work is closely related to topics covered in recitation. These topics are treated in greater depth and with more emphasis on quantitative rather than qualitative answers.

## 2—2 Research in Chemistry

(3232) Prerequisite: *Chemistry 25* or *Chemistry 30* completed with distinction, and permission of the instructor. One prepared period and three unprepared, double laboratory periods, or the equivalent. Each student selects a research project in consultation with the instructor and then carries out the necessary work. (Dr. Minné)

## 3—3 Elementary and Organic Chemistry

(3243) Three prepared class periods, one unprepared double laboratory period. Prerequisite: completion of either *Chemistry 25* or *30*. Students interested in medical or biological fields or in additional chemistry must generally wait until the college sophomore year before studying organic chemistry, the chemistry of carbon compounds. This course is a prior introduction to this critically important and fascinating subject.

Organic chemistry is largely non-mathematical and descriptive in nature. Students will use a condensed "mini-course" text, learn many of the laboratory techniques unique to organic chemistry, make use of three-dimensional plastic molecular models, and gain a sound background in nomenclature, functional groups, bonding, simple mechanisms, typical reactions, and infra-red spectra. (Dr. Wilson)

## 4—1 Stereochemistry

(3251) Prerequisite: Completion of *Chemistry 25* or the equivalent. Three prepared periods and two unprepared, double laboratory periods. For students who wish to study chemistry further without trying to achieve advanced placement. This course is an introduction to stereochemistry, the study of the symmetry and shapes of organic and inorganic molecules. (Dr. Rees)

- 52—23    **Advanced Chemistry (T2)** (a two-term commitment)  
 (8275)    Prerequisite: *Chemistry 25* or *Chemistry 30* completed with distinction and a year of physics, which may be taken concurrently. Four prepared periods and one unprepared, double laboratory period. The course is for students who wish to prepare for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.
- 55—0    **Honors Chemistry**  
 (8280)    Prerequisite: One year of physics. Three prepared periods for recitation and two unprepared, double laboratory periods. This course is open to a limited number of able students, by invitation, who have strong scholastic records in mathematics and physics. No prior course in chemistry is expected. It is essentially the equivalent of a first-year college course, and prepares students for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board. (Dr. Minné.)

## Physics

- 25—0    **Physics**  
 (8310)    (Formerly *Physics 20—0.*) Five class periods, one unprepared, Open primarily to Lower Middlers. An introductory course in the basic concepts of physics. A less rigorous course than *Physics 30*, it is designed for students with latent mathematical maturity. Students should have completed one year of algebra before enrolling. Successful completion of the course prepares the student for the College Board Achievement Test in Physics. Text: *Concepts of Physics* by Miller, Dillon, and Smith.
- 30—1    **College Physics**  
 (8321)    Five class periods, one unprepared. Co-requisite: Registration in at least *Mathematics 30* or its equivalent. A non-calculus, B-level Advanced Placement physics course for students with ability in mathematics and science, this first term is a study of classical mechanics (including rotational dynamics and physical pendula), with extensive laboratory work an integral part of the course. *Physics 30—1* (or equivalent) is a prerequisite for *Physics 30—23 (T2)*. Text: *College Physics*, by Franklin Miller.
- 30—23    **College Physics (T2)** (a two-term commitment)  
 (8325)    Prerequisite: *Physics 30—1*. Five class periods, one unprepared. Wave motion, heat, kinetic molecular theory, thermodynamics and electrostatics in Winter Term. Electrodynamics (including magnetism), geometrical and physical optics, early atomic and nuclear theory in the Spring Term.
- 52—12    **Advanced Physics (T2)** (a two-term commitment)  
 (8374)    Prerequisite: Honor grade in *Physics 30* (or equivalent) and previous completion of or concurrent registration in a calculus course. This is a rigorous course in mechanics (Fall Term) and electro-statics and dynamics (Winter Term) using both scalar and vector calculus extensively. This course generally prepares candidates successfully for the C-level Advanced Placement Examination in Physics and entrance to *honor level* programs in physics at the best colleges in the world. Text: *Physics* by Resnick and Halliday. (Mr. Apgar)



5—0 **Physics Honors**

380) Four prepared class periods and one unprepared double laboratory period. An advanced course using considerable scalar and vector calculus. Open only by permission of the Department Chairman to a small group of very talented students who are concurrently taking at least a first year calculus course. The course is designed for students who have not previously taken a course in physics, may have taken a chemistry course, and generally plan to take the C-level Advanced Placement Examination in Physics. This is a very rigorous course and only those who demonstrate great talent and interest should attempt it. In the last few years it has tended to be more theoretically oriented than other department offerings. Text: *Physics* by Resnick and Halliday. (Mr. Sarton)

0—3 **Relativity and Quantum Mechanics**

393) Prerequisites: *Physics 30* and *Math 52*. Four prepared class periods. Relativity and Quantum Mechanics are two theories that completely revolutionized man's thinking about the universe. The course is a survey of the basic ideas underlying these theories. Special mathematical techniques needed for a better understanding of the material are developed in the course.

**Science Courses****imal Animal Behavior**

Prerequisite: one year of Biology. Limit of sixteen students. Preference given to Seniors. Three prepared class periods and one unprepared double laboratory period. The course is designed to familiarize the student with the basic principles of animal behavior. The topics which receive the greatest emphasis are: territoriality, courtship, parental behavior, migration, dominance, and the evolution of behavior patterns. Readings from *On Aggression*, *The Territorial Imperative*, and "Scientific American" reprints are included.

**omy Observational Astronomy**

0—1 Four prepared class periods. Astronomy is one of the few sciences left that the amateur can enjoy while still making meaningful contributions to the field. This course exposes students to observing the heavens with the unaided eye, binoculars, and telescopes. Classes are scheduled in the Observatory three nights each week. Students identify constellations, track asteroids and planets, and learn how to observe using a telescope. Limit of 10 students. Students are encouraged to bring cameras, binoculars or other optical equipment they own. Permission of the instructor is required prior to enrollment. (Mr. Sarton)

**omy Astronomy—The Universe Beyond the Solar System**

5—2 Four prepared class periods. This course is designed for Uppers and Seniors who are interested in a college level course in modern astronomy. We shall consider some of the most fantastic objects in the known universe, such as quasars, pulsars, and black holes. In addition we shall discuss the theories which describe these objects: theories that analyze the evolution of stars, the formation of the universe, the implications of

relativity for space travel, and the search for extraterrestrial intelligence (ETI). The course will be made up of slide presentations, films, discussions and sessions in the Phillips Academy Observatory. (Recommended for students who have had *Science 13*.) (Mr. Sarton)

Geology      Geology

34—1      Four prepared class periods, with two periods each week used for laboratory work. A general introduction to physical geology, with special (8451) attention given to socially significant aspects of this science, e.g., mineral 34—3 resources, groundwater budgets, petroleum exploration, nuclear waste (8453) disposal, geothermal energy. Text: *Earth's Dynamic Systems*, Hamblin. Lab Manual: *Physical Geology*, Hamblin. (Dr. Wilson)

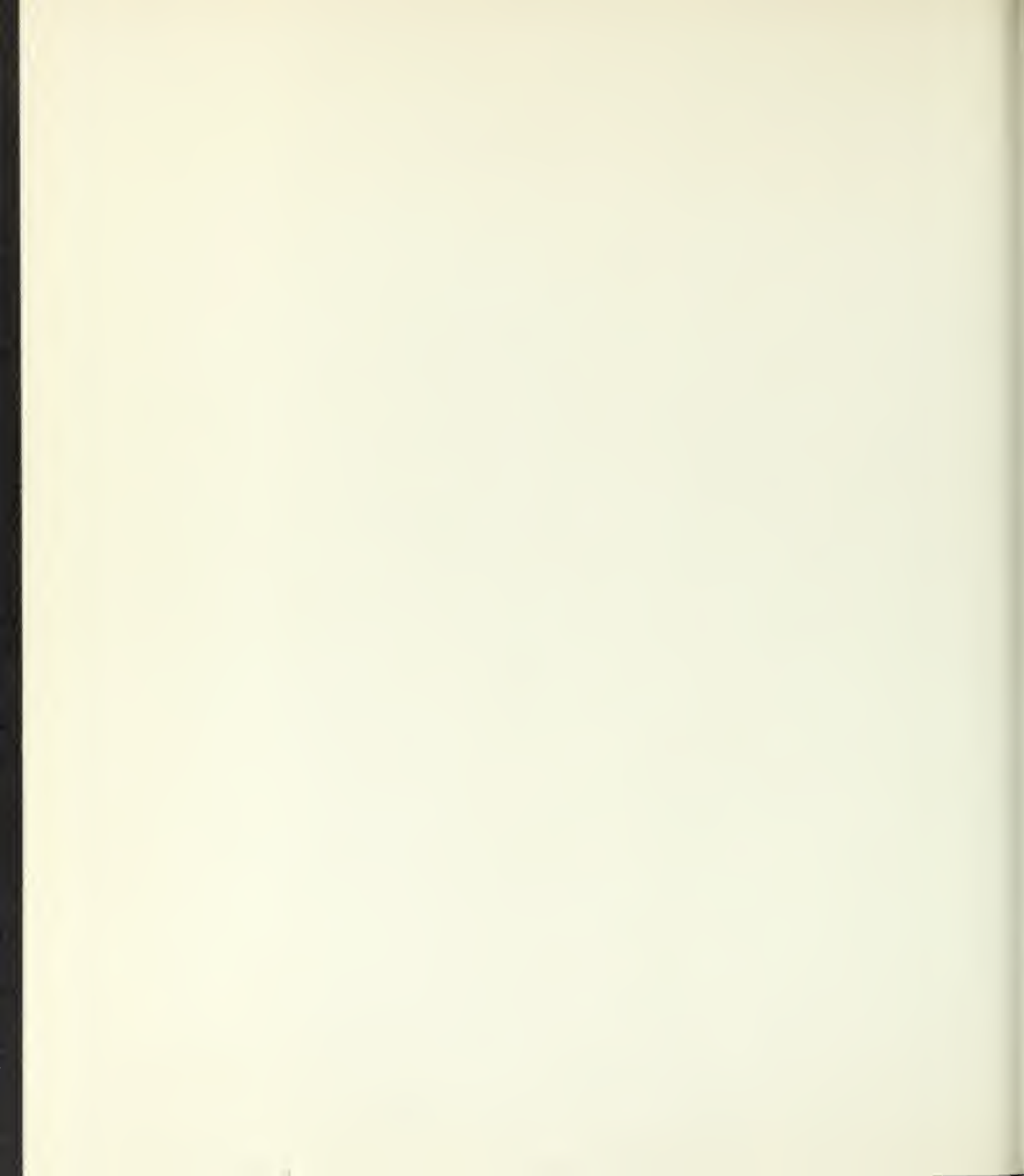
Science      The Physics of Technology

36—3      Prerequisite or co-requisite: *Mathematics 30* or equivalent. Three prepared (8563) periods and one double-period laboratory. This non-traditional physics course is open to students with no previous background in physics who would like to investigate how physics applies to technology. The course will consider such topics as: strobe photography as a scientific tool; vibration and resonance (case study, the Tacoma Narrows Bridge collapse); solar energy and solar collectors; nuclear reactors and their dangers; aerodynamics and the SST; and, possibly, optics and lasers. This course is more intuitive and less mathematical than *Physics 30* and will place emphasis on lab work and discussions. In general, this course is not open to students who have taken physics, though permission from the instructor might be granted in special cases. (Mr. Sarton)

# Andover

# Catalog 1979-80







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Andover, Massachusetts 01810

## CALENDAR 1979-80

### Fall Term

September 15, Sat.	New Students arrive
September 17, Mon.	Old Students return
September 20, Thurs.	Classes begin
November 21, Wed.	Thanksgiving Break begins, 12:50 p.m.
November 26, Mon.	Thanksgiving Break ends, 8 p.m.
December 4, Tues.	Fall Term examinations begin
December 8, Sat.	Examinations end — vacation begins, 12 noon

### Winter Term

January 2, Wed.	Students return by 8 p.m.
January 3, Thurs.	Classes begin
March 5, Wed.	Winter Term examinations begin
March 8, Sat.	Examinations end — vacation begins, 12 noon

### Spring Term

March 26, Wed.	Students return by 8 p.m.
March 27, Thurs.	Classes begin
May 30, Fri.	Spring Term examinations begin
June 4, Wed.	Examinations end, 12 noon
June 5, Thurs.	Commencement



Phillips Academy,  
Andover, Massachusetts,  
better known as Andover,  
is an independent, coedu-  
cational, integrated and  
non-sectarian institution  
offering a variety of aca-  
demic programs for high  
school students.







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PHILLIPS ACADEMY IN 1778.

## Introduction to Andover

In an old carpenter's shop, "fitted up temporarily for school purposes," thirteen pupils gathered to meet Master Eliphalet Pearson and hear a dedicatory sermon by the Reverend Jonathan French. The date was April 30, 1778, and the Phillips School of Andover was begun. There was little reason to believe the future held bright promise that Thursday morning two hundred years ago, for both our school and the young nation of which it was a part existed more in the hopes of their founders than in reality. Indeed there was a certain audacity in venturing any new enterprise at a time when the war with England was going badly and there was, as yet, no stable government for the new American nation. But twenty-six-year-old Samuel Phillips, Jr. had set about convincing others that the times required just such a venture as the Phillips School. He wrote, "upon the sound education of children depends the comfort or grief of parents, the welfare or disorder of the community, the glory or ruin of the state. The present public ignorance gives rise to a fear of events the most dreadful. . . ."

Our modern Phillips Academy bears little physical resemblance to its origins, but it is striking how strong the threads of continuity are with the ideals and even the government set forth by the founders. The emphasis on intellectual and moral training and the determination to draw able young people from every quarter of society are ideas as appropriate today as they were in the Revolutionary age in which they were conceived.

Andover, for all of its two hundred years, has been and remains a place for young people to learn "*the great end and real business of living*," a goal set forth in the *Constitution* that has served us, unchanged save for emphasis appropriate to the changing times, for two centuries. We serve today over eighteen hundred young people, most between fifteen and eighteen years of age, at the Academy among the course of a calendar year. Some eleven



President George Washington wrote in 1793:

"There are two [sic] private Academies in the state of Massachusetts which are highly spoken of . . . That at Andover I have been at myself, it is in a high, dry & pleasant Country, & is more of a township than a town — Inhabited by respectable & well disposed people. — Schooling, board washing & lodging will not much, if any, I am told, exceed two dollars a week for each boy." Excerpt from President Washington's letter to his nephew, Colonel William Augustine Washington, who subsequently enrolled his sons.

hundred students are at Andover during the traditional school term for periods up to four years. Over seven hundred spend the summer with us. While the students in our day are drawn from a narrower age group than earlier — Eliphalet Pearson faced both a six-year-old and a thirty-year-old in his first class in April of 1778 — their hopes and worries, many of the decisions they face, even their pranks, are timeless.

It should be a privilege to attend Andover, but Andover should not be a school of privilege. We are committed to enrolling able students from all economic levels, from every racial, religious and ethnic entity, "from every quarter" of American life, and from foreign lands. Our *Constitution* bids us do this. Andover is no single group's sanctuary. In a day when many Americans, by their actions, are rejecting even the ideology of the melting pot, we assert it.

Andover is a residential school, a twenty-four-hour learning community. This allows us to draw young people from across neighborhood lines, across state and national boundaries. Young people learn from peers as much as from teachers, particularly in a setting where there is no abrupt clash between classroom and street, between school and home. Class, racial, religious and geographic diversity enrich a school and undermine the divisions that rend national and international life. We presume to forward the learning of leaders here, and leaders in our day must know first-hand how trivial are racial, social, national and religious differences, and how significant is the unity in humanity.

Andover is well-equipped to provide for students whose interests and abilities are primarily in the academic realm, in the traditional liberal curriculum. While the so-called "liberal arts" in American schools and colleges have often drifted into pedantry and dullness, we yet believe that the core of this tradition is sound. When demandingly taught, this liberal arts core provides the basis for public and moral leadership. Keen rationality, nourished by examined tradition, is the root of individual decency and freedom.

In a school the principal means to achieve these ends are decent, free and talented teachers. Andover's teachers are strong personalities, individuals of energy and well-considered values, instructors whose work is in the classroom, and also on the playing field, in the dormitory, in the dining hall — in short, across the full range of places where both adult and young person meet. American education is moving away from such a model of teacher. In the mistaken belief that "efficiency" will result, teaching is broken into mechanistic bits. Andover makes a stand



for the other, older tradition, for whole teachers who are concerned about whole pupils, their struggles and joys, their bodies and souls as well as their brains.

Our American culture, alas, is not one which takes youth seriously. True, we "use" adolescents as a market and sell much to them. We make fetishes of their tastes. We curse them and try to curb them when they disturb adult lives. But generally Americans feel that the teenaged years are something to get over, certainly not something in which to invest, to respect or to trust. The founders of this school knew better, and we reassert that knowledge. We do take youth, and adolescent education, seriously. Youth is important, a crucial time of life. For those whom Andover serves, now and in the future, we want it to be a rich, constructive and joyful experience.

THEODORE R. SIZER  
*Headmaster*





## Andover Life

### A Beginning



In 1782 Paul Revere was commissioned to make the Phillips Academy seal. Revere engraved the educational faith of Andover's founders—"The end depends upon the beginning"—around the symbols of the rising sun and the hive of industrious bees. The founders' religious and patriotic commitment to the common good is symbolized by the second motto, "Non sibi," "not for one's self."

Phillips Academy opened for instruction shortly before the Continental Army marched out of Valley Forge and, in one sense, the school and the nation have grown up together. Paul Revere engraved Andover's seal; John Hancock signed its Act of Incorporation, and George Washington sent his nephews here to study. Samuel F. B. Morse and Oliver Wendell Holmes were students of Principal John Adams. Harriet Beecher Stowe lived and worked at Andover; she is buried in the Academy cemetery, and her home is now a dormitory. "America" was written on Andover Hill in 1832. For two centuries we have sought to develop sound scholarship, character and self-reliance in our students, as well as a commitment to work for the good of the nation and mankind.

If you come to Andover today, you won't have to go far to see a building designed by Charles Bulfinch or one named for Nathan Hale. You will take classes in a modern arts and communications center, an archaeology museum and in buildings dating back to the War of 1812. You might live in a dormitory constructed in 1808 or one built in 1973. Your next door neighbor might be from Texas or Thailand. You might take Greek and kinetics, or Russian and astronomy. You might learn how to play squash, discover what it's like to work for a radio station or how to run rapids in a kayak or canoe.

The opportunities are here.

## A Purpose

The Phillips Academy faculty, meeting in the winter of 1979, adopted the following as a statement of goals and intentions:

Phillips Academy is committed to providing a rigorous academic education for qualified "youth from every quarter," as stipulated by our Constitution, and to helping students develop the skills and values necessary for personal fulfillment and a significant contribution to society. The Academy strives to meet this commitment in several ways: recruiting aggressively and welcoming qualified and promising students from a wide range of ethnic, economic, and geographic backgrounds, in the belief that diversity itself can be an enriching component of education; providing a strong curriculum in intellectual and artistic disciplines to cultivate a vision of man's potential as well as an understanding of his accomplishments, and to establish a basis for further exploration and perhaps eventual specialization; offering a diversified program in competitive athletics and physical education to foster physical agility, endurance, and resilience, as well as an appreciation of physical achievement and the notions of play and sportsmanship; developing a program in health to promote an understanding of and respect for physical and emotional well-being and to encourage sound health habits; encouraging the study and exercise of religious beliefs, as a means of spiritual nourishment; offering experiences in leadership within the community, in order to develop responsibility, resourcefulness, and social concern; and providing innovation and a measure of leadership in secondary education, a responsibility dictated by our combination of independence, resources, and tradition.

## The Place

Phillips Academy was the first boarding school to be incorporated in the United States (1780). For 194 years, until 1972, it was an all-male institution; in October of that year the Trustees of the school announced the merger of Abbot Academy and Phillips Academy to effect a single coeducational school. Abbot Academy, established in 1829, was one of the oldest girls' boarding schools in the nation. Several years of coordinated academic courses and extracurricular activities between the two neighboring schools preceded the merger. During its two centuries the school has grown in size



from a single rude building and a few acres of land to an extended campus of 160 buildings on over 450 acres.

The school is located on a hilltop in the town of Andover, a 45-minute bus ride from Boston and Cambridge. It is well situated for easy access not only to the historical, cultural and entertainment offerings of the Greater Boston area, but to the beaches and mountains for which northern New England is justly renowned.





## The People

### *Students*

There are 1106 students (674 boys and 432 girls) in Andover's regular session. A further 743 attend the Academy Summer Session, and some 63 attend Short Term Institutes held on campus at various times during the school year (see page 45).

Andover students come from every walk of life, from virtually every state in the union and from more than 30 foreign countries. They are divided into four classes: Seniors, Uppers, Lowers and Juniors — our traditional terms for 12th, 11th, 10th and 9th graders. Although some are here for four years and others for programs taking a much shorter time, they all have two things in common: intelligence and the willingness to use it.



### *Faculty*

The faculty number 192, 15 with Ph.D.'s and 107 with M.A.'s. The power of an Andover education flows directly from their scholarship and classroom teaching.

Andover asks much of the men and women who teach here: although the heart of the work is in the classroom, the tradition of schoolmastering calls for the teacher to serve simultaneously as house counselor or student advisor, coach and part-time administrator. Andover teachers are accessible to students in the dormitory, in athletic endeavors, in extracurricular activities; they share an abiding interest in the growth of young people and a willingness to become directly involved in that process.

### *A year, a week, a day*

Andover operates on a trimester system, offering about 290 separate courses that vary in length from one trimester to the full year. The year begins in late September and ends in mid-June, with breaks at Thanksgiving, Christmas and in the early spring.

Classes are held on Monday, Tuesday, Wednesday morn-

ing, Thursday, Friday and every other Saturday morning. Classes are normally 50 minutes long, providing five instructional periods in the morning and, with the exception of Wednesday and Saturday, two in the afternoon. An individual is likely to have one morning period and one afternoon period free each day, depending on the scheduling of courses and laboratories.

Participation in athletics is required of all students, and athletics and activities are scheduled four afternoons a week for two hours each. On Wednesday and Saturday afternoons, varsity and junior varsity teams often participate in interscholastic competition.

Meals are served in Commons, the central dining hall, composed of four dining halls and two serving areas. The cost of meals is included in the fees of both boarding and day students.

Wednesdays and Saturdays are half holidays with no afternoon academic appointments. On alternate Saturdays there usually are no morning classes. Sunday is totally free. On these days there is time for independent study, for special

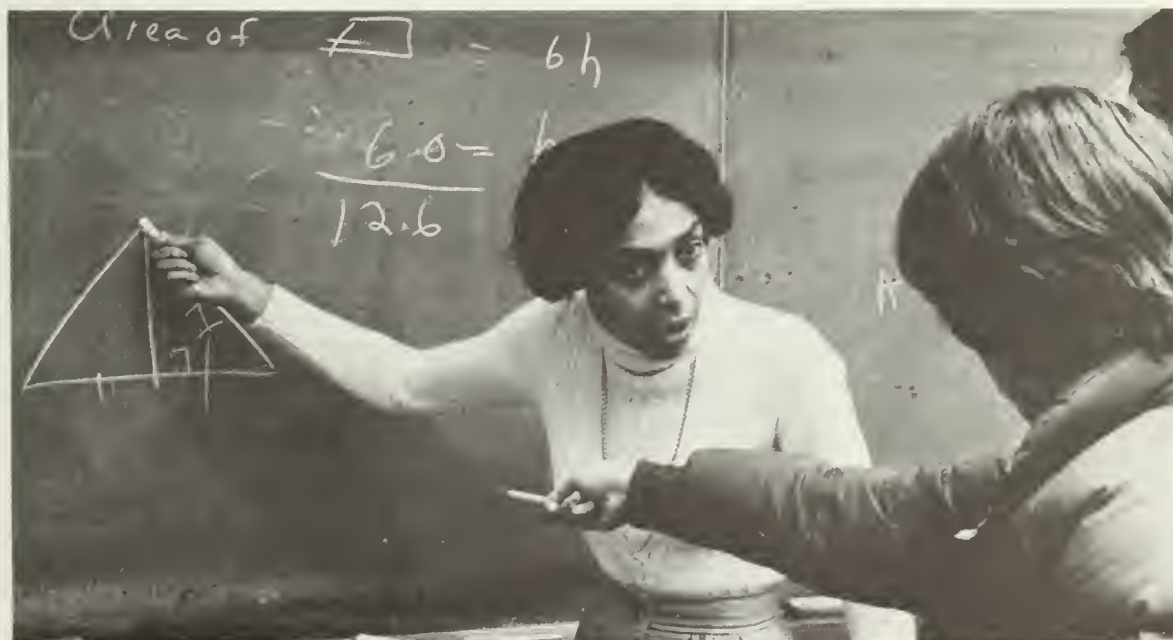




projects, for informal sports, shopping in Andover or trips to Boston, the beach or the mountains. Social events during the week are limited by the demands of the academic program, but the weekend program on campus includes dances, concerts, movies, plays and informal activities.

Most students are eligible to take a day excuse each week, and, after the first two weeks of the year, they are eligible to take overnight excuses beginning after their last scheduled weekly appointment.

Course work is intensive and involves about twenty-five hours of outside preparation each week. In addition, all students are required to attend athletics or afternoon activities for approximately six hours each week. Virtually all students spend from two to four hours a week in the school work program. Despite the amount of time that must be spent on academic pursuits, most students become very involved in extracurricular activities and social events. The school encourages independence and personal responsibility: there are no study halls, and decisions about the use of one's time are largely left to the judgment of the individual.



## Residential Life



Dancing was forbidden in the 1820's, "and when a rash Frenchman proposed to start a dancing academy in the town, the Principal (John Adams) did his best to have him summarily ejected by the village fathers."

Claude M. Fuess, *An Old New England School*

### *Dorms and Clusters*

Boarding students live in dormitories with faculty house counselors and their families. Although these buildings vary in size and house from four to twenty-two students, all are small enough to encourage close relationships among students and between students and house counselor. One third of the students live in single rooms; two-thirds have one or two roommates. Rooming arrangements vary from large one-room doubles to three-room suites; larger dorms are likely to have students from at least three classes.

For many students, dormitory life is one of the most valuable aspects of their time at Andover. Whether it's planning a pancake breakfast or studying for a history mid-term, sharing it with people from very different backgrounds or from foreign lands is a rewarding learning experience.

Dormitories are grouped into six geographical units called "Clusters," each including girls' and boys' dorms, about 175 students from all classes, and 15 to 20 faculty families. Clusters create the personal atmosphere of a small community in which everyone knows everyone else and people do most or many things together. The Cluster System is the heart of Andover's residential life, bringing the advantages of a small school to an institution that already has the advantages of size.

The Clusters have considerable independence; teachers and students together manage their own affairs under the leadership of a Cluster Dean. Each Cluster has its own student officers, discipline system, intramural athletics and informal social activities.

Clusters are responsible for administering much of the student work program, which is designed to develop a sense of community responsibility for the daily operation of the school. It also assists the school in reducing its expenses. Working no more than three periods a week, students share the jobs of returning books to library stacks, operating audio-visual equipment, serving as office helpers, messengers, laboratory assistants, and performing other essential tasks. Other students are responsible for the daily care of dormitories, while all residents of a given dormitory are responsible for keeping its entries free of litter and snow.

The Clusters take turns each week working in the dining hall, Seniors serving as overseers. Seniors have other supervisory roles; they proctor in dormitories and, as members of Blue Key, organize the welcoming and orientation of new students in the fall.







Always speak to an Andover man on the street whether you know him or not. All cheering is under the direction of the cheerleaders. Individual cheering is not allowed. New men are expected to have the songs and cheers perfectly learned by the end of the first two weeks. It is not good form to cut or mark school furniture. Try to keep enlarging the number of your acquaintances, but be slow to make intimate friends.

*Selections from 1920 rule book, Customs and Points for New Men*

### *Counseling and Discipline*

Those who are not accustomed to a residential school may at first be surprised by the degree of independence an Andover student has; on the other hand, they may be surprised by the existence of rules and procedures necessary to protect the rights of individuals and to enable the school to achieve its ends. Existing rules have a dual purpose: to preserve the necessary order in the community so that effective learning can take place, and to teach students that individual freedom can be achieved only through due consideration for others. The school tries to keep rules to a minimum. Incoming students and their parents are provided with a copy of the *Academy Blue Book*, summarizing rules and regulations; all students are held responsible for its contents.

Each student has a faculty house counselor who lives with his or her family in the dormitory and who is available for advice and assistance. This faculty member works closely with students in the dormitory on both the personal and academic level, and parents can expect to hear from the house counselor at regular intervals. Parents are encouraged to turn to the house counselor for information regarding a student's progress.





Each Cluster Dean supplements the work of the house counselor and is available to students and parents for information and advice. Other support staff include academic advisors, who help students in the Cluster plan their academic programs, and the College Counseling Office, which assists all Seniors with their future educational plans. The Psychology Department, located in Graham House, offers individual counseling for any student and leadership training for students who wish to develop those skills.

Discipline is handled at the Cluster level and involves the Cluster Dean, house counselor, other faculty and student representatives. Offenses involving a student's integrity, social offenses that threaten the well-being of other individuals or the school community, and continued infractions that indicate an unwillingness to come to terms with the demands of the school — all render a student liable to dismissal. Cluster recommendations for suspension or dismissal are made to the Headmaster, who makes the final decision. Examples are dishonesty, the possession or use of alcoholic beverages or illegal drugs and unauthorized absence from school bounds. Students may not possess, rent or drive any motor vehicle within school bounds; bicycles are permitted. Andover does not allow smoking, unless students have completed a school-administered course on the health hazards involved and have parental permission.

In a community such as Andover, all must commit themselves to the goals of the community and to loyalty to each other. Since education at Phillips Academy is both intellectual and humane, students and faculty derive mutual support from sharing of themselves and their ideals.

Trust and responsibility have many interpretations; these words have become hackneyed from overuse and misunderstanding. But the ideas they embody — sensitivity to others, willingness to explore and respect differing points of view, charity and humility in expressing judgment, readiness to cherish friendship, to depend and to be depended upon — are nonetheless fundamental. Such values can scarcely be legislated and can only be imperfectly defined. Yet the health and happiness of everyone in the community depend on consideration and awareness, restraint and candor, discretion and shared joy. Collaboration toward these imprecise but worthwhile ends is an expectation which all at the Academy hold.

Only boys and girls who feel that they can live happily

for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for rebuilding the Academy	2,000.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.
for the support of Charitable Scholars	500.

In 1789, the first scholarship monies are recorded, from John Phillips, "in consideration of further promoting the virtuous and pious education of Youth, (poor children of genius and of serious disposition especially) in Phillips Academy, founded in Andover, Massachusetts."



Harriet Beecher Stowe, author of *Uncle Tom's Cabin*, and her husband, a Seminary professor, lived in Stowe House. She is buried in the school cemetery. Mrs. Stowe shocked the strict Congregationalist community by giving parties and entertainments for students, was suspected of going to the theater and even of having "Episcopalian leanings."

Claude M. Fuess, *An Old New England School*

with the rules and guidelines of Phillips Academy should apply for admission.

#### *The Campus Ministry*

Phillips Academy is newly committed to a "team" ministry, representing the Protestant, Roman Catholic and Jewish faiths, that seeks to be responsive to the spiritual needs of the school. The school chaplains are ordained faculty members who generally teach courses other than courses in religion, but have the additional responsibilities of worship services and of pastoral counseling. Andover students come from various religious traditions; some have no religious affiliation. The school wishes actively to support several religious communities within the institution and hopes that a less formal but more focused approach to the spiritual life of the school will encourage other teachers and students to active participation and leadership.

Worship services are available for all who wish to participate. A Protestant interdenominational service and a Roman Catholic Mass are held on Sundays; the Jewish congregation has services regularly on Friday evenings.

#### *Activities*

Extracurricular activities are an important aspect of a student's education, and Andover offers a rich fare, thanks to the diversity of interests in the student body. From the Pre-Med Club member to the Model Railroader, it seems that all Andover students do something special in their free time.

Many of the activities are service-oriented; the Community Service Program places student volunteers in area hospitals, elementary schools, youth centers and other agencies. Closer to home, the Tour Guide Association handles the responsibility of conducting campus tours for the Admissions Office. Older students who are members of the Tutorial Program offer help to fellow students in academic difficulty. The student radio station, WPAA (91.7 on your FM dial), is on the air from 6:30 a.m. to 11:30 p.m. daily, serving the local listening area as well as the student body. The *Phillipian*, the Academy's student-run weekly newspaper, is wholly uncensored; students lay out the paper and do some of the typesetting, as well as write the articles and headlines. The *Pot Pourri*, the school yearbook, and the school literary magazine, *The Mirror* (Robert Frost was an early contributor), provide more opportunities for those with a literary bent.



Cultural organizations include the Afro-Latino-American Society, the Asian Cultural Society and others; course-related groups range from the Astronomy Club to the Russian Club. The Chapel Council, the Newman Club and the Jewish Student Union support the "team" ministry in providing active religious communities for Andover students.

At any time during the week, actors and directors will be working on a main stage play or on a student production in



the Drama Lab; the Andover Student Political Union may be listening to a State Department official discuss the Middle East; the Natural History Club may be birdwatching on an ocean beach or — if the season is right — the Ski Club may be on its way to the White Mountains of New Hampshire.

Many students make extensive use of school facilities in their free time, whether or not they are affiliated with a club or organization. The Arts Center is a major focus of school life — darkrooms are used almost around the clock, and students and faculty interested in painting, metal sculpture, ceramics or design make use of the center's studios and workshops in their free time. The Music Department also provides facilities for students interested in pursuing music beyond the classroom.

There is no limit to the variety of extracurricular activities at Andover. Students who do not find an existing club or organization that meets their needs are encouraged to start one.

## Undergraduate Organizations (Clubs)

Afro-Latino-American Society  
Andover Student Political Union  
Asian Cultural Society  
Astronomy Club  
Athletic Advisory Board  
Backgammon Club  
Band  
Blue Key  
Brass Choir  
Bureau of Tutoring  
Cantata Singers  
*Caucus* (Af-Lat-Am publication)  
Chamber Music Society  
Chapel Council  
Cheerleaders  
Chess Club  
Chorus  
Coin Club  
Day Student Union  
Drama Workshop  
Duplicate Bridge Club  
Eagle Scout Post 107

EAT (Environmental Action Team)  
*Eidolons* (student photography publication)  
Fidelio (madrigal singing society)  
French Club  
German Club  
Jazz Band  
Jewish Student Union  
Math Computer Club  
*The Mirror* (literary magazine)  
Model Airplane Club  
Model Railroad Club  
Muse  
Natural History Club  
Newman Club  
Orchestra  
Outing Club  
P.A. Women's Union  
*The Phillippian* (weekly student newspaper)  
Philomathean Society (debating society)

*The Pot Pourri* (yearbook)  
Pre-Law Society  
Pre-Medical Society  
Press Club  
Psychology Club  
Radio Broadcast Association (WPAA-FM)  
Russian Club  
Sailing Club  
Ski Club  
Social Functions Committee  
Spanish Club  
Stage Crew  
Stamp Club  
Student Guides  
SUMOP (Summer Job Opportunities)  
Table Tennis Association  
United Nations Club  
Western Union  
Young Democrats





## Educational Resources

### The Holmes Library

At the center of Andover's intellectual life is the 101,000-volume Oliver Wendell Holmes Library, named after the famous doctor and poet who was a member of the Class of 1825. The stacks are open to students. In addition to academic work, students and teachers use the library to explore new fields of interest and to read casually.

The library subscribes to over 250 American and foreign periodicals and 11 daily papers from cities throughout the country. A microfilm file of *The New York Times* is available. Particular library treasures are an original elephant folio of *Audubon's Birds of America*, papers and books of Oliver Wendell Holmes, and one of the world's leading collections of Vergiliana. The science and mathematics departments have working libraries in their own buildings.

## The Addison Gallery



Wandering  
by Peter Atan

The Addison Gallery of American Art operates both as a museum in the traditional sense and as an art center for the whole community. In addition to organizing exhibits of American art from its own collection, the museum originates exhibits of contemporary painting, sculpture, photography and crafts. A student-produced seminar series brings artists into close range contact with students concerned with issues of use and survival in the arena of contemporary art. In cooperation with Phillips Academy's Music Department, concerts by faculty and students are produced in the museum.

The holdings of the museum are recognized as a distinguished specialized collection: Allston, Copley, Morse, Stuart, West and others represent the Colonial period. Of special importance among the many paintings of the nineteenth century are examples by Cole, Doughty, Eakins, Homer, Inness, LeFarge, Ryder, Twachtman and Whistler. The early part of the present century is shown in the work of Bellows, Davies, Demuth, Hassam, Hopper, Luks, Marin, Prendergast and Sloan. Contemporary artists are represented by works of Calder, Lippold, Moholy-Nagy, Hofmann, O'Keeffe, Pollack, Shahn, Wyeth and others.

## The Robert S. Peabody Archaeology Museum

The Robert S. Peabody Foundation for Archaeology has conducted major archaeological research in this hemisphere for the last 75 years and has published many reports of its scientific investigations. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas. The laboratories of the museum assist in teaching and illustrating the Foundation's research. Mature students may undertake special study projects which involve the use of the Foundation's collections and library resources.

Current research is concerned with the origins of agriculture and with the concomitant rise of civilization in the New World. The Foundation maintains continuing research programs in Mexico and Peru and supports major publications based on the analysis of this research. The Peabody Foundation is under the direction of Dr. Richard S. MacNeish, a member of the National Academy of Sciences of the United States; the curator is Dr. Jane Wheeler Pires-Ferreira.

## **The Cochran Sanctuary**

The Moncrieff Cochran Sanctuary is a sixty-five-acre tract of rare beauty located so close to the center of school activity that it is in fact an extension of the campus. Landscaped areas planted with dogwood, azalea, rhododendron and laurel provide a succession of bloom that draws many visitors from late April to mid-June. A brook and two ponds attract nesting ducks and geese, and extensive natural wild areas, varied in terrain and plant life, provide nesting places for many species of land birds. Cross-country runners and skiers make extensive use of the Sanctuary, as does the Academy's Search and Rescue program.









## The Academic Departments

### The Curriculum

The curriculum of Phillips Academy contains both a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Instruction is given in all subjects required for entrance to higher institutions, whether liberal arts or technical. All departments offer courses beyond the level of preparation for college.

Classroom groups are small enough to permit individual attention; the average class size is fourteen. Students are placed in sections fitted to their attainment and, through accelerated sequences and advanced courses, are encouraged to progress at a rate commensurate with their ability and ambition. Many students fulfill requirements ahead of the normal year, increasing their choice of college-level courses and other elective opportunities. Andover's trimester system provides flexibility and variety in the curriculum and allows various combinations of independent work and off-campus projects.

Every student is assigned to an academic advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements and the student's particular interests. With the approval of the academic advisors and house counselors, students may select their instructors, class times and sections during the Arena Day preceding each trimester. However, the school cannot guarantee that all students will be able to have their desired selections.

The curriculum and diploma requirements are described in detail in the *Course of Study*, which will be sent to each preliminary applicant and to others who request it.

## THE ARTS



When Humphrey Bogart flunked out of Andover in 1918, it was not from lack of ability, his teachers agreed. Headmaster Alfred Stearns wrote to Humphrey's father, a classmate of Stearns: "The boy is all right at heart and is bound to come out on top."

## Visual Arts

At the heart of the art program is a concern that all students learn to see freshly and accurately, that they learn how to organize their efforts to make something happen, that they develop a critical eye for the coherence of their environment, all these with an independent mind.

The diploma requirement in art is as follows: entering Juniors and Lowers must take a trimester course in studio art; an entering Upper must take a trimester course in studio art or music. Andover attempts to balance structured, problem-solving courses like the basic Visual Studies, with more adventurous advanced courses, organized around longer-term projects. For a student who desires several terms in art or design, the courses are here, whether the student's objective is a professional school, Advanced Placement in a liberal arts college, or simply a strong basis in a traditional area of general education.

The superb facilities of the Arts and Communications Center — fully equipped wood and metal shops, two complete photo labs, print-making equipment, painting and drawing studios, a kinetics studio — are supplemented by the several kilns available to ceramicists. The department welcomes extracurricular use as well as work related to courses, and faculty members are on hand every evening to encourage the idea that whether it's painting or bicycle repair, the Arts Center is the place to go.

## Theatre

Courses in theatre are designed for students who seek formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work on plays. A variety of experiences is available: some courses are performance oriented; some are theory oriented; some are both. All combine classroom and workshop sessions; students work out practical theatrical problems together under the guidance of an instructor. Courses in directing, acting, production, stage lighting and design are all popular.

George Washington Hall includes a flexible, professionally equipped proscenium stage, capable of handling audiences of one thousand. It has a full fly system, accommodation for numerous lighting instruments and an elevator/pit. In the past, main stage



productions included *Scapino*, *The Me Nobody Knows*, *A Thurber Carnival*, *Cabaret*, *The Time of Your Life*, and *The Comedy of Errors*.

The Drama Lab, also in George Washington Hall, is a "black box" — an intricate arena/workshop with excellent lighting facilities, suitable for audiences of not more than 100. Although main stage plays are usually directed by a member of the faculty, the Drama Lab allows students to direct plays themselves and to experiment with dramatic styles. A sample of productions from the last year includes *Trial by Jury*, *The Point*, *The Prime of Miss Jean Brodie*, and plays by Albee, Ionesco, and Pinter. Original student work is also performed here.

Theatre students are encouraged — but not required — to supplement their classwork by participating in any of the numerous productions mounted each year; anyone may audition for the Andover Touring Company, for six years part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life* and *Godspell* during spring vacation.



## Music

The Music Department faculty consists of five full-time and several part-time instructors. Other highly qualified instrumentalists are available to teach voice, piano, organ, classical guitar, brass, percussion, strings, and woodwinds.

Andover offers courses for the beginner as well as for intermediate and advanced students both at the applied level (study of musical instruments or playing in a musical organization) and in the history, appreciation, and theory of music. An entering student who has not had the opportunity to learn to play may join a class to study an orchestral instrument. He or she may also, for a nominal fee, study privately.

The Nature of Music, or Music 20, is the diploma requirement in music, and a prerequisite for most courses in the history, appreciation, and theory sections. A more advanced three-part course, Theory of Music, runs in sequence throughout the year.

Graves Hall, the department's home, has large rehearsal halls for the Concert Band and the String Orchestra, many individual practice and ensemble

rooms, one music classroom, teaching studios and an electronic music studio. The department also has a large up-to-date record library and listening room. The Chorus has a fully equipped rehearsal room and a library of music literature in the Cochran Chapel, a short distance away. The Chapel also houses one organ for the use of beginning and advanced organ students. Another is in the process of being built and will be installed in early 1981.



## ART

### *Introductory Studio Courses*

Visual Studies  
Visual Studies for Juniors  
Introductory Ceramics  
Introductory Photography  
Art Studio

### *Intermediate Studio Courses*

Drawing  
Animation  
Two-Dimensional Design  
Three-Dimensional Design  
Intermediate Ceramics  
Intermediate Photography

### *Advanced Studio Courses*

Visual Studies (Art 10) is a prerequisite for all advanced courses.

Graphics and Photography  
Studio Photography  
Painting  
Filmmaking  
Advanced Ceramics  
Print Shop  
Advanced Photography  
Sculpture  
Kinetics  
Architecture  
Contemporary Communications  
Puppetry  
Calligraphy: The Art of Lettering by Hand

Advanced Placement in  
Studio Art

Art and Architecture in Antiquity and the Middle Ages (History)  
Art and Architecture in the Renaissance and Baroque (History)  
Art and Architecture Since the French Revolution (History)

## MUSIC

### *Applied*

Beginning Instruments  
Recorder Ensemble  
Brass Ensemble  
Woodwind Ensemble  
String Ensemble  
Fidelio Society  
Band  
Chorus  
Chamber Orchestra  
Private Instrumental and Vocal Lessons  
The Nature of Music  
Developing Musical Skills  
*History and Appreciation*  
Medieval and Renaissance Music (to 1600)  
Baroque Music (1600-1750)  
Classical Music (1750-1820)

Romantic Music (1820-1900)  
Twentieth Century Music (1900-Present)

Independent Study in the History and Literature of Music  
Jazz  
Popular Music in America

### *Theory*

Orchestration and Conducting  
Theory of Music I  
Theory of Music II  
Theory of Music III  
Electronic Music  
Advanced Techniques in Electronic Music

## PERFORMING ARTS

### *Theatre Courses*

Introduction to Theatre  
Introduction to Acting  
Public Speaking  
Acting Workshop  
Scene Study  
Directing Workshop  
History of Theatre  
Stagecraft  
Play Production  
Shakespearean Workshop  
Playwriting

### *Dance*

Introduction to Dance



## CLASSICS

Latin and Greek — still? Yes, ironically enough, futuristic nightmares and present turmoils are re-awakening a search for order, perspective and ideals in the human experience, and names like Plato, Vergil, the Parthenon and the *pax Romana* not only symbolize great milestones in that search but also suggest the habits of mind that produce enduring greatness — the same habits of mind that show up so clearly in a sentence, paragraph or entire work of Latin or Greek literature.

The chief aim of the Classics Department is to help students rediscover this sense of order and ideals, in the hope that they may apply it, in turn, to the challenges they face today. Many recognize this by choosing Latin or Greek as the foreign language in which to fulfill the diploma requirement. Others elect one or both as second or even third languages. Still others opt for elective survey courses in various aspects of Classical civilization, as listed below, or, by special arrangement, for independent projects in reading or research.

### THE CLASSICS

*First-year Greek:* basics of language and culture

*Accelerated first-year Greek:* two years in one

*One-term introduction to Greek language and culture*

*Second year:* Xenophon, Plato, New Testament

*Third year:* Homer, Euripides

*Fourth year:* Sophocles, lyric poets, Thucydides

*First-year Latin:* basics of language and culture

*Accelerated first-year Latin:* two years in one

*One-term introduction to Latin language and culture*

*Second year:* Caesar, Livy, Plautus

*Third year:* Cicero, Sallust, Vergil

*Fourth year:* Vergil's *Aeneid*

*Fifth year:* Horace, Catullus, Livy, Tacitus

Greek Civilization

Roman Civilization

Epic Poetry

Etymology

Ancient History

Classical Mythology

Survey of Greek literature

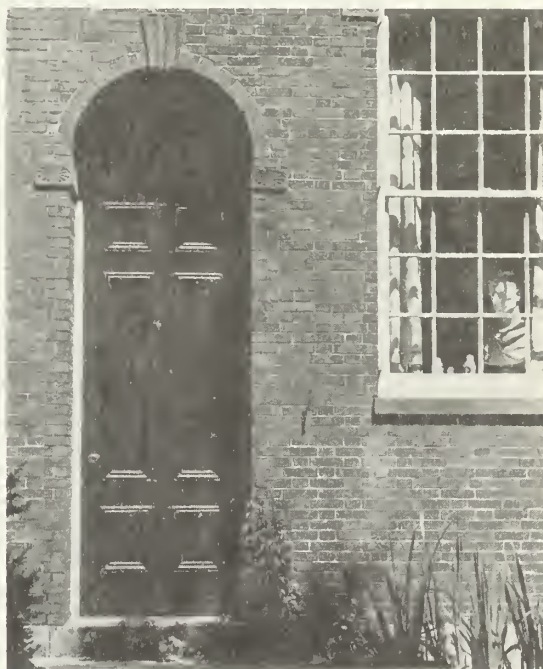
Survey of Roman literature

## ENGLISH

Convinced that level of achievement is more important than the number of years a subject is studied, the English Department has established modest but firm diploma requirements. A student must prove himself competent in writing and reading through the English Competence course and, by taking the Literature Sequence, acquire a sense of the depth and breadth of his literary heritage.

Once the student has successfully completed that Literature Sequence, which normally takes a year and offers several options, opportunities multiply. Students may enroll in any of the Literature Sequence courses that they have not yet taken; they may study any of the more than twenty advanced or specialized courses offered by the department; Seniors may qualify for an independent project supervised by the teacher of their choice.

The department also serves the needs of less





advanced students. Tutorials are offered for training in the fundamentals of language.

The walls that used to separate academic departments are crumbling. A number of the courses in the Performing Arts, most notably in Theatre, are taught by members of the English Department. Most of the interdisciplinary courses are related to English studies. A course in English etymology is taught by the Classics Department. Several of the foreign language departments offer courses about their literature in English translation, but the fundamental requirement does not change. Every student who graduates from Andover has either passed the Competence course in the basic skills of writing and reading or English 300.

## ENGLISH

### *Introductory Courses*

Language Skills

English 300 (for seniors  
and postgraduates)

### *Required Sequence Courses*

English Competence (three-term)

Lit B, 1660-1900 (two terms)

Lit C, Shakespeare (one term)

### *Elective Courses*

(Only courses with sufficient  
enrollment will be given.)

Efficient Reading

Irish Studies

Great Writers Before 1850

Introduction to Writing

Hemingway: The Man and His  
Work

Black Literature

James Joyce

Man and God

Forms of Literary Imagination

### *Modern Playwrights*

Shakespeare: The Man, The

Times, The Theatre, The Plays

Satire and Comedy

Novel and Drama Seminar

Creative Writing

American Writers of the

Twentieth Century

Milton and Spenser

Chaucer and his Age

Wit and Poetry in the

Seventeenth Century

Writing Short Fiction

## HISTORY AND SOCIAL SCIENCE

The courses in History and the Social Sciences cover a broad spectrum of human experience: from the Vietnam War to ancient Athens, from modern art to primitive cultures, from the American family to Chinese society. They range in teaching techniques from drill in close reading, note-taking and testing to individual projects, written or oral, conceived by students. All are based on the conviction that a citizenry that is informed about man's experience, both past and present, is essential to a democracy such as ours. It is the hope that once interest in the story of man has been kindled, it will be pursued for the rest of an individual's life.

No course in the department uses a formal textbook. Students work with paperbacks, books on reserve in the library, mimeographed handouts, movies, and slides. In all courses emphasis is placed not only on the subject matter studied but also on the acquisition of basic historical skills that should serve the student well throughout the remainder of his educational career.

The courses for the two lower classes are focused on three courses in biography — American, European, and Asian. These courses emphasize study

skills basic to the study of history. The department believes that the study of Great Men and Women is particularly appropriate for younger students. In addition, these courses are designed to prepare the students for the course in United States History to be taken in the Upper or Senior year and for other upper level history courses. Other courses for the lower classes include one in anthropology, and one in Colonial America.

The diploma requirement for history is successful completion of United States History plus one trimester elective taken in the Upper or Senior year. Again the approach is topical; the traditional aim of training students to handle historical material with discretion and to write essays containing substantive factual support for general statements remains; the pedagogical techniques for accomplishing this are constantly under review. In United States History, and in many of the trimester electives, students are required to choose their own topics for an extensive paper; they are encouraged to use the raw materials of history — newspapers, letters, diaries, interviews. Qualified students in American History may spend the spring term in Washington, working as interns in Congressional offices.

### HISTORY AND THE SOCIAL SCIENCES

#### *Social Sciences*

The Emergence of Man  
Ethnicity and Racism in American Society  
Environments and the Individual  
Introduction to Economics

#### *History*

Early American Society  
Leaders of the Western World:  
The American Scene  
Leaders and Issues of the Western World: The European Scene  
Asian Biography  
The United States

East Asia in Revolution  
The Discovery of India  
Ancient History  
Modern Japan  
Modern Europe: A Survey  
Modern Russia  
International Relations: The Present Patterns  
The Middle East  
Modern Russia: History and Literature  
Major "Isms" and the Nation State  
Stuart England  
Elizabethan England  
Victorian England: England in an Age of Expansion

The Rise and Fall of the American Presidency  
Schools in America  
Families in America  
Quantitative Historical Data Analysis  
Women in History  
Art and Architecture in Antiquity and the Middle Ages  
Art and Architecture in the Renaissance and Baroque Eras  
Art and Architecture Since the French Revolution  
American Art History, 1770-1950  
American South





## MATHEMATICS

The opportunity to study mathematics at Andover is limited only by the interest and capacity of the student. The teaching staff has had a wide variety of training and experience. All have been well trained in mathematics, most of them having at least a master's degree in their field. They are men and women who have contributed to the teaching profession by writing textbooks, by writing articles for journals, by serving on committees of such national organizations as the National Council of Teachers of Mathematics, the School Mathematics Study Group, and the College Entrance Examination Board Committee. More importantly, they are devoted to teaching a subject which they find fascinating and which they wish to make fascinating for others.

To serve all needs, the mathematics curriculum is built around a core sequence of eight trimester courses, three of elementary algebra, two of geometry, and three of precalculus topics, completion of which will satisfy the diploma requirements. An additional trimester is usually required before entering calculus. A student entering with little or no prior study of algebra normally starts with Elementary Algebra, those with a partial year of algebra enter Algebra and continue to Geometry. Students entering with a full year of algebra enter Geometry. Those with one year of algebra and one year of geometry will satisfy diploma requirements by taking the first three precalculus trimesters.

Besides the standard sequential courses, the department offers many elective, term-contained and year-long courses, descriptions of which may be found in the *Course of Study*. Faculty in the department are always willing to guide students in individual projects. Projects have in the past been in such fields as probability, computer programming, computer assembly languages, the theory of numbers, advanced geometry, linear algebra and Markov Chains.

The required sequential courses involve algebra, geometry, logic, statistics, computer programming, elementary functions and elementary probability. The elementary and advanced elective courses include the study of limits and sequences, number theory, elementary and advanced calculus, analytic



geometry, differential equations, probability, statistics, computer analysis, linear algebra and vector analysis.

The Mathematics Department is located in Morse Hall, which was completely remodeled in 1964. It houses the campus computer center which offers time sharing in the BASIC-PLUS language through ten public terminals. Instruction and practice in the use of the computer are given in the required course sequence. The main computer is a PDP-11/45 manufactured by the Digital Equipment Corporation. The department is in the process of expanding its mini-computer facilities. The present Radio Shack TRS-80 with 16K ROM is to be joined

by an Apple II and several other mini-computers in the next few years.

Over one-third of all mathematics at Andover is taken electively, much of it in preparation for the Advanced Placement Examination. In 1978 about 60 students took the BC calculus exam and 75 percent received the top grades of 4 or 5. About 30 students took the AB exam and over 90 percent received passing grades of 3 or better. The community of students who like math at Andover is sizeable, and they share their curiosity and knowledge by offering to tutor other students at the school.

## MATHEMATICS

### *Courses Leading to Satisfaction of the Diploma Requirement*

Elementary Algebra  
Algebra  
Geometry  
Geometry and Circular Functions  
Precalculus  
Elementary Functions

### *Elective Courses*

(Only courses with sufficient  
enrollment will be given.)

Intuitive Calculus  
Exploring Data  
Probability and Statistics  
Statistics  
Transformation Geometry  
Mathematics Revisited  
Theory of Numbers  
Computer Programming  
Numerical Methods  
Elementary Calculus

### Honors Calculus

Calculus Continued and Other  
Topics  
Linear Algebra and Vector  
Calculus  
Infinite Series and Differential  
Equations  
Mechanical Drawing (Elementary)  
Mechanical Drawing  
(Intermediate)  
Mechanical Drawing (Advanced)  
Navigation (Coastal Piloting)  
Navigation (Celestial)

## MODERN FOREIGN LANGUAGES

As long ago as 200 B.C. the Latin poet Ennius used to say that because he knew three languages he had three hearts. Andover can render no finer service to today's world than to send forth its alumni with many hearts, ready and able to feel for, to understand, and to respond to the millions of people who speak languages other than English.

The foreign language requirement for the diploma is three years of an ancient or modern language. The modern foreign languages offered at Andover are French, German, Italian, Russian and

Spanish. From the very beginning, emphasis is on the spoken word, and the foreign language is the basis for all communication in the classroom. Small classes of approximately fifteen students make possible maximum participation, with supplementary aural-oral practice provided by our extensive language laboratory. There are opportunities to join accelerated classes which complete, for example, the work of four years in three.

Courses at the 4th-, 5th- and 6th-year levels may supplement the study of literature with study of the art, history, geography and music of the foreign

country. In special upper level courses students can prepare for the Advanced Placement examination and qualify for advanced language courses when they enroll in a college. Superior students may carry out various independent projects, including apprentice teaching, under careful faculty supervision.

At all levels of study progress in the foreign language is facilitated, and the resources of the classroom are expanded, through occasional use of communication media (periodicals, radio, etc.), and through such activities as the staging of plays, the use of the school's radio station for broadcasts in foreign languages, festivals, language tables in the dining room, movies, clubs, visits by performing groups, and trips to language events in Boston and at nearby schools and universities. Students are also urged to consider opportunities, sponsored by Andover or by other schools, to live and study abroad.

For Andover's School Year Abroad program, see page 47.

## French

Before the outbreak of the French Revolution, French was considered the universal language of the West. It was the language of diplomacy, was already flourishing as a literary medium and, because of its clarity and precision, reflected both French culture and philosophy, influencing the development of democratic institutions in the United States as well as in other countries. The study of French rewards the student with the ability to communicate with French-speaking peoples and enables him to appreciate the importance of order in expression, broadening his views through a growing familiarity with the rich and lively literature and civilization that the language represents.

The Andover student may at the third year of French elect any sequence of trimester courses in literature, civilization or intensified language study. In the fourth, fifth and sixth years this study can continue in greater depth. School Year Abroad offers a year program in Rennes. Frequent *Veillees*



and sometimes a French-speaking dormitory give students the opportunity to speak under different circumstances outside the classroom.

## German

German is central Europe's principal language, and knowledge of it opens up an understanding of European culture and affairs. Students may learn German to read the works of Goethe, Schiller, Lessing, Kafka, Hesse, Brecht and Grass in their original form, or to follow the arguments of Hegel and Nietzsche, or perhaps to understand more intimately the background of modern socialism and democracy in the world. Many of the most important developments in modern physics, electronics, chemistry and engineering were originally published in German, and American businesses have realized the importance of personnel able to speak German.

The German Department offers a six-year course of study with the purpose of developing the ability to understand spoken German, facility in speaking,

reading fluency, and the ability to write German correctly. The more advanced courses give an introduction to German literature since the eighteenth century and a survey of German history, culture and geography.

## Italian

The current rising enrollment in Italian in American schools and colleges reflects a growing awareness of the charm of the Italian language and of the cultural heritage which it serves. Andover's accelerated course for Seniors attracts students with rich experiences in other languages, is conducted in Italian, and has the scope of a course for college freshmen.

## Russian

Approximately 40% of Russian secondary school students are learning English. Although secondary school is still the best place to begin, only a fraction of 1% of American secondary school students study Russian.



If, as treaties and exchange programs suggest, the U. S. and Russia are in a continuing era of cooperation and understanding, must our doctors, legal experts, scientists, educators and businessmen be obliged to carry on all mutual investigations with Soviet counterparts in English? Certainly, from the standpoint of mutual respect and understanding, this is neither desirable nor advantageous. The obvious solution is an increasing pool of intelligent young American men and women who know the Russian language.

Occasionally supplemented by visiting instructors from the Soviet Union, the Russian Department consists of four instructors, all of whom have travelled and studied in the USSR. The department offers a course of five years of study. An accelerated sequence enables qualified students to complete four years' work in three and receive four years' credit. Russian as a second foreign language is a popular choice. However,

many of Andover's 9th and 10th graders successfully choose Russian as a first language.

### Spanish

The Spanish Department is anxious to help students discover the rich variety of cultural heritage in the Spanish-speaking world through intensive study of the language, both spoken and written.

It seems particularly important for students to learn a language spoken every day by millions of Americans living in major cities and towns across the United States. Those students who will enter the professions will find Spanish an indispensable tool. But whatever they eventually do, knowing Spanish will be the key to a richer and more rewarding life.

The department meets the needs and tastes of a great variety of students in its multiple offerings in six years, including accelerated courses on campus and overseas.

## MODERN FOREIGN LANGUAGES

Each language offers introductory and intermediate courses, with opportunities for acceleration at those levels. Students are then eligible for the following courses:

### FRENCH

Language Review and Contemporary French Life  
Selected Readings  
Village Français  
French Civilization  
Conversation and Phonetics  
Written Expression  
Literature and Film  
French Theatre  
French Literature  
French History  
French Civilization  
Outside of Europe  
Quebec et les Québécois  
Stylistics  
Advanced Placement  
French Language  
French Literature  
Contemporary Literature  
Senior Projects

### GERMAN

Literature, Composition and Conversation  
Literature for Advanced Placement  
Special Topics  
Senior Projects

### ITALIAN

Introductory Course for Seniors, accelerated

### RUSSIAN

Literature, Composition and Conversation  
Advanced Literature, Composition and Conversation  
Russian Press  
Literature  
Special Topics  
Senior Projects  
Russian History and Literature

### SPANISH

Second and Third Year, Advanced, with Winter Term in Mexico  
Spanish Language Review  
Aspectos de la Cultura y Civilización del Mundo Hispánico  
Introduction to Literature, with Grammar Review  
Literature and Culture, with Grammar Review  
Literature for Advanced Placement  
Advanced Studies in Literature  
Special Topics: Literature, Sociology, Culture  
Senior Projects  
Latin American Studies



## PHILOSOPHY AND RELIGIOUS STUDIES

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundations of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered in three groupings corresponding to the three quests and at a variety of levels. In each grouping an introductory course is supplemented by courses emphasizing specific issues and by courses emphasizing high-level theory. All courses are elective and involve four prepared class periods.

## PHILOSOPHY AND RELIGIOUS STUDIES

### *I. The Search for Meaning*

The Religions of Man  
Biblical Narrative: The Personal Dimension  
Religion and Culture  
The New Testament  
Views of Human Nature  
Existentialism

### *II. The Search for Justice*

Values Clarification  
Ethical Issues in the Sciences  
Law and Morality  
Nonviolence in Theory and Practice  
Ethics and Education  
In Search of Justice: from  
Socrates to Marx

### *III. The Search for the Foundations of Knowledge* Proof and Persuasion Great Philosophers



## SCIENCE

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers Andover students an introductory term-contained course in archaeology in the spring term. The course deals with the prehistoric development of civilization in the four earliest centers: Mexico, Peru, China and the Near East, as well as with archaeological theory and method. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas.

### Biology

Andover provides ample opportunity to develop interest in the biological sciences. In addition to the basic biology course, the department offers advanced courses in anatomy and physiology, animal behavior and Advanced Placement biology. The basic course gives students a general background and an understanding of some of the current trends in biology. Field trips, laboratory work, independent projects, lectures, slides and films are all part of the course.

Animal Behavior studies some of the wildlife in

eastern Massachusetts. The course plans field trips to the coast, salt marshes, lakes and wooded areas within a few hours of Andover.

An advanced biology course prepares older students for the Advanced Placement exam. The material offered by the basic biology course is reviewed, and new concepts, techniques and examples are also presented. The labs give students experience in the techniques of centrifugation, chromatography, electrophoresis, spectrophotometry and statistical analysis.

Informal field trips are held throughout the year for interested students who may or may not be currently enrolled in a biology course. The small zoo in Evans Hall is maintained by students. Its population varies with student interests and the reproductive rate of the animals. The department is equipped with a phase microscope and several camera attachments for studying photomicrography. In the basement of Evans Hall there is an extensive bird collection on loan from Harvard University, a shell collection and a natural history museum maintained by interested students.

The Evans Hall greenhouse is a refreshing place to visit during the long winter months. Students grow plants there or start potted plants for their own rooms. An environmental growth chamber is available for those interested in photoperiodism. Independent study is encouraged in all the courses.



## Chemistry

The Chemistry Department offers full-year introductory courses at various levels which prepare students for more advanced work in chemistry.

Students have undertaken many special projects in the well-stocked laboratory. For example, one student recently investigated the "Miller experiment," the synthesis of amino acids by electric discharge through methane, water vapor and ammonia. Another examined the colors of optically active coordination compounds of cobalt. One student spent a term synthesizing organic compounds and examining their infrared spectra. Two students have studied organic qualitative analysis as an introduction to the chemistry of organic functional groups. Although qualitative analysis has been included in the latter part of many elementary courses in organic chemistry, this may be the first instance of its use at the very beginning.

Students usually suggest their own experiments, but they can also adopt and change existing projects in a creative way. A student might design computer programs for chemistry problems, study the use of microchemistry to diminish school laboratory pollution, or explore molecular structures with infrared spectroscopy.

The department has the equipment for the usual experiments in elementary synthesis and analysis, including five Mettler single-pan analytical balances. There are instruments which enlarge the scope of feasible projects — a pH meter, several vacuum tube voltmeters, a Kontes Universal Electrode Kit, a Kern polarimeter, a Bausch and Lomb Spectronic 20 colorimeter and a Perkin-Elmer 700 infrared spectrophotometer. Convenient access to the computer (PDP-11, resource time-sharing system) in the Mathematics Department is provided by a teletype terminal located in the Chemistry wing of Evans Hall.

## Physics

The Physics Department teaches five basic courses of various degrees of difficulty. Most require laboratory work and consist of classroom demonstrations, discussions and problem-solving. Also offered are courses in earth science, astronomy, physical science, college-level Advanced Placement courses and relativity and "early" quantum mechanics.

Project work may be done for credit or merely one's own satisfaction. In past years students have transmitted conversations by means of laser beams and built a Van de Graff proton accelerator. One student worked on holograph experiments; another built his own electronic calculator. Other students have used sophisticated equipment to measure the velocity of light, determine Planck's Constant and perform experiments of their own design. In recent years astronomy has become a larger and more active subset of the department.

## Psychology

Individual instructors in the department welcome the opportunity to discuss special interests with any student and have sponsored individual projects such as a study of student values, the evaluation of a social service experience and a program of reading and discussion in a specialized branch of the field.

## ARCHAEOLOGY

Archaeology

## SCIENCE

Introductory Physical Science

Preparation for the Physical Sciences

Earth Science

Astronomy—the Solar System

Introduction to Energy

Oceanography

Ecology

Introduction to Zoology

Junior Science Honors

Energy and the Future

Applied Human Biology

Biology

Introductory Biology

Anatomy and Physiology

Advanced Placement Biology

Chemistry

Elementary Introductory Chemistry

Introductory Chemistry

Research in Chemistry

Elementary Organic Chemistry

Stereochemistry

Advanced Placement Chemistry

Honors Introductory Chemistry —  
Advanced Placement

Physics

Physics-25

College Physics-30

The Physics of Technology

Advanced Physics-52

Physics Honors-55

Relativity and Quantum

Mechanics-60

Special Science Courses

Animal Behavior

Observational Astronomy

Astronomy—The Universe

Beyond the Solar System

Geology

"The schoolmaster of the book-and-rule type has absolutely no attraction for me, but I would like to continue the effort to become an *educator* of boys. [I] Would prefer to have my pupils remember me as something more than a mechanical pile-driver of facts — useful as such engines may be. It would also be pleasing if they left the recitation room with minds somewhat better than mimeographic reproductions of the books they have used." Classics Instructor Charles Henry Forbes, in an 1893 letter to Headmaster Bancroft

## Other courses

## INTERDISCIPLINARY

Study Skills

Synthesis: A Multidisciplinary

Approach to Problems

Literature of the Quest

Russian Literature in English

Soviet Literature in English

French Music in French

Greek Literature in Translation

Roman Literature in Translation  
Typing

## PHYSICAL EDUCATION

All new Juniors and new Lower  
are required to elect one  
semester of PE. 10 in addition  
to their regular athletic com-  
mitment.

Physical Education







## Complementary Programs

Andover's complementary programs combine a number of innovative ideas designed to promote better coordination between public and private education nationally. The concept behind these programs is that of multiple schools. While one school may be accepted as the "home-base" diploma-granting institution, several other institutions may be utilized as complements to this school. Thus far, the multiple schools idea has taken form in several program models which are open to Phillips Academy students as well as students from other schools.

### The Andover Summer Session

The Andover Summer Session is a short intensive academic program in which both innovative and traditional courses are taught in only six weeks. Courses in all subjects and at all levels demand hard work — harder work than most students have ever before experienced. Besides English, modern languages, mathematics, history, and the sciences, the curriculum offers such opportunities as Play Production Workshop, Social Psychology, Great Philosophers, Law and Morality, and Film Workshop, Archaeology and Anthropology, Oceanography and Marine Biology, Modern Economics, and the American Presidency.

Other features of the Summer Session are special courses in writing, including the nationally known "Competence in Reading and Writing" (developed at Andover); an expanded ESL Program (English as a Second Language) for foreign students who wish to achieve English fluency; and a Chamber Music Program which provides a unique opportunity for musical students in all combinations of piano, strings, winds,

and voice, including individual instruction, small ensemble work, orchestra, and chorus. The Chamber Music Program is an integral part of the Summer Session with class hours, afternoon activities, mealtimes, etc., the same for music participants as for all other students.

The Summer Session makes use of all the school's facilities and is open to able boys and girls from all parts of the country and abroad. Applicants must be graduates of the 9th, 10th, 11th or 12th grades. The faculty and staff are an expert and diverse group of men and women, some of whom come from Phillips Academy and some from other schools and colleges. A catalog can be obtained by writing Jean C. McKee, The Andover Summer Session, Phillips Academy, Andover, MA 01810 or calling 617/475-3400, ext. 170.

### (MS)<sup>2</sup>

The (MS)<sup>2</sup>—Math and Science for Minority Students —program offers minority students a better opportunity to enter technological fields at the college level. (MS)<sup>2</sup> provides three consecutive tuition-free summers of study at Andover. Ninth grade boys and girls are selected for their superior ability and strong interest in mathematics and science. The goal of (MS)<sup>2</sup> is to prepare minority students to compete successfully for careers in science, engineering and medicine. Further information can be obtained by writing:

Diane Jones, Director  
(MS)<sup>2</sup> Program  
Phillips Academy  
Andover, MA 01810



### The Short Term Institutes

The Short Term Institutes at Andover are intensive, multi-week courses of study in a single subject, designed to offer high school students a unique residential learning experience. First taught in the fall of 1974, the Institutes are scheduled during the winter and spring of each academic year and are intended to complement a student's home school program, not compete with it.

The average Institute enrolls a dozen students who are together for four hours of class, lab and work each day. Most STI students have been Seniors, but the program is open to any highly recommended student in the 10th, 11th or 12th grades.

While the curriculum changes from year to year, the STI program usually offers study in modern languages, physical and biological sciences, mathematics, and English. However, the actual courses themselves are generally rather innovative. Some of the past Institutes have been Issues in Law, Medicine and Education, Biochemistry, Creative Writing, Visual Studies, Advanced French, Finite Mathematics, Psychology, and Animal Behavior. All Institutes are taught by Phillips Academy faculty members.

STI students live together in a complex of dormitories and have at their disposal all the usual social, athletic and academic facilities of the Academy, as well as access to a variety of cultural facilities in Boston.

Time is scheduled during which STI students can partially maintain modest obligations to their home school classes. Most students are fully caught up within two or three weeks of their return home. Some STI students have been granted college credit for their Institute work, and the Dean of the STI program is happy to fill out college recommendations for any STI graduate.

For further information write to Mrs. Jean McKee, Director of Admissions, The Short Term Institutes, Phillips Academy, Andover, MA 01810 or call 617/475-3400, ext. 172. Applications deadline is December 15, 1979, for winter Institutes and March 10, 1980, for spring Institutes.

## School Year Abroad

School Year Abroad conducts programs for upper-classmen in France and Spain. Originated by Andover as an off-campus program, it was later jointly sponsored by Andover, Exeter and St. Paul's School. Students may spend a full academic year living with host families while pursuing a course of study under the supervision of teachers from the original sponsoring schools. The program provides full academic credit, permitting students to graduate from Phillips Academy with their own class, as well as the experience of immersion in a foreign culture. Qualified Upper Middlers and Seniors, who will have completed the American history and laboratory sciences requirements, are eligible for School Year Abroad. Phillips Academy tuition, fees and financial aid do not cover the cost of this program. A catalog can be obtained by writing School Year Abroad, Samuel Phillips Hall, Phillips Academy, Andover, MA 01810.

## The National Network of Complementary Schools

Phillips Academy is a member of the National Network of Complementary Schools, which provides its students the opportunity of attending, on an exchange basis, the intensive specialized programs offered by member schools.

The Network is a group of diverse schools which have joined together to serve their students in a new and unique way by sharing their specialized programs. Structured on an "intensive" basis so that the student normally focuses on a single topic or is fully involved in one internship, most of the Network programs are offered because they exploit a special strength or resource of a particular school.

The excitement and challenge of these programs are increased by the opportunity to experience a new and different community. Students travel to the other school locations on a "term-length" basis; live with local families or in dormitories, in the case of boarding schools, and experience studying with a new group of students.

The Network was conceived and planned in 1974 by administrators from Phillips Academy and Beverly Hills High School, Beverly Hills, California. The



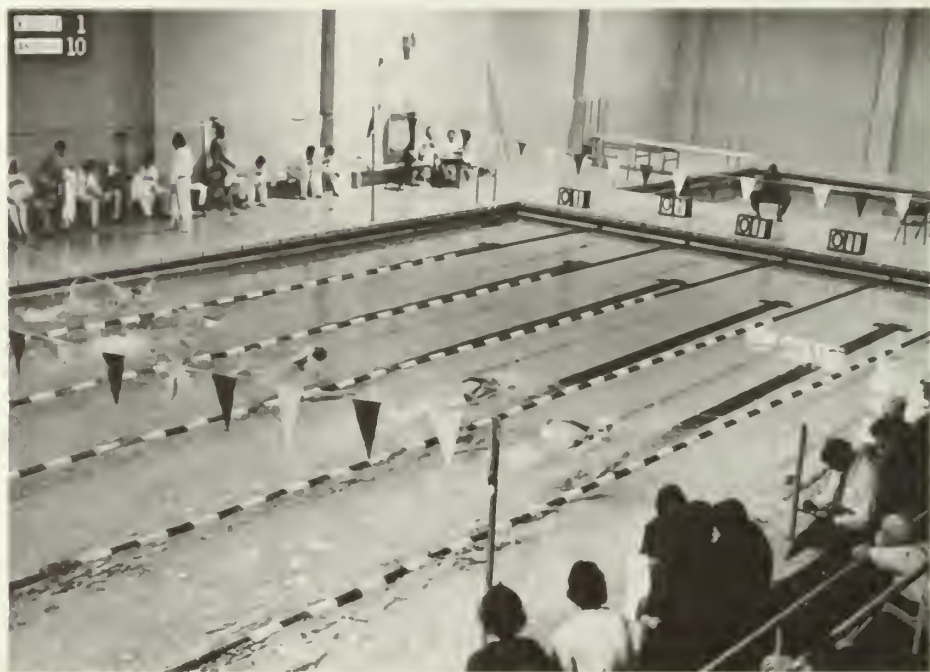
Short Term Institutes at Andover are offered as the Academy's Network program. Phillips Academy tuition, fees and financial aid do not cover the cost of this program.

## Other Complementary Programs

Andover offers several complementary residential programs. The Washington Intern Program, sponsored by Andover and Phillips Exeter Academy, allows a group of Upper Middlers and Seniors to spend the spring term in Washington working in the offices of U.S. Senators and Congressmen. Phillips Academy tuition, fees and financial aid do not cover the cost of this program.

In addition to school-sponsored programs, many Seniors arrange off-campus projects related to their special interests. Some have worked as interns with officials in local government and members of the Massachusetts legislature, while others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative and careful planning of a course of study that will meet diploma requirements and free a block of time during the term.







## Athletics



Archie Bush, Class of 1866, returned from the Civil War to complete his studies and organized a baseball team for Andover's first interscholastic sports competition. When Archie and his friends cut a geometry class to attend a baseball game, Principal Samuel Harvey Taylor, who brooked no nonsense, kicked them out of school. The Trustees rescinded this action years later and granted them all diplomas. Too late for Archie, who had died on his honeymoon trip to Europe.

In sports, as in studies, students are expected to meet basic requirements and are given wide choice in broadening and deepening their skills, interests and dedication in athletics.

A basic evaluation test is given to all new girls and boys to insure that each student has the physical skills necessary for further participation in the athletic program. Special courses are required of those students whose test results indicate a need for attention in the area of physical aptitude. Similarly, non-swimmers are given instruction toward meeting reasonable standards of proficiency. In addition, new Juniors and Lower Middlers have physical training four hours a week for one term of their first year, as well as regular athletics.

The regular afternoon athletic program includes a wide variety of offerings in varsity and junior varsity competitive interscholastic sports, in intramural cluster-organized athletics and in instructional and recreational physical activities. Wherever numbers permit, separate interscholastic competitive team programs are created for Junior boys.

Upperclassmen have the opportunity to substitute an activity or project for one term of athletics a year. Each spring the department offers a Senior Life Saving course and a Water Safety Instructors course for those swimmers who wish official accreditation.

The school maintains several athletic facilities which include 12 playing fields and 25 tennis courts; the Borden and Memorial Gymnasiums with swimming and diving pools, basketball and squash courts, weight training room and other conventional gym spaces; the newly renovated Case Memorial Cage with its indoor track; the Sumner Smith Hockey Rink; the crew boathouse on the Merrimack River;



the ski trails and jump at Holt Hill, and the Search and Rescue Room in Evans Hall, which provides the base of operations for Andover's popular outdoor program.

Phillips Academy is committed to a required athletic program that provides a variety of sports and activities to its students. The Academy discourages overspecialization in sports at this age level; the athletic program is a complement to, not a substitute for, the academic curriculum. The Athletic Department oversees the program and its facilities with the support and advice of the Faculty Athletic Committee and the Student Athletic Advisory Board.

#### FALL TERM

Boys  
Ballet  
Crew  
Cross-Country  
Cycling  
Football  
Golf  
Karate  
Modern Dance  
Search & Rescue  
Soccer  
Tennis  
Girls  
Ballet  
Crew  
Cross-Country  
Cycling  
Field Hockey  
Karate  
Modern Dance  
Search & Rescue  
Soccer  
Squash  
Tennis

#### WINTER TERM

Boys  
Ballet  
Basketball  
Gymnastics  
Hockey  
Modern Dance  
Paddle Tennis  
Search & Rescue  
Skiing:  
    Competitive (Alpine and Nordic)  
    Recreational (Cross-Country)  
Squash  
Swimming  
Track  
Wrestling  
Girls  
Ballet  
Basketball  
Gymnastics  
Modern Dance  
Paddle Tennis  
Search & Rescue  
Skiing:  
    Competitive (Alpine and Nordic)  
    Recreational (Cross-Country)  
Squash  
Swimming  
Track (non-competitive)

#### SPRING TERM

Boys  
Ballet  
Baseball  
Canoeing/Kayaking  
Crew  
Cycling  
Karate  
Lacrosse  
Modern Dance  
Search & Rescue  
Softball  
Squash  
Tennis  
Track  
Girls  
Ballet  
Canoeing/Kayaking  
Crew  
Cycling  
Karate  
Lacrosse  
Modern Dance  
Search & Rescue  
Softball  
Tennis  
Track

## Health Care



In the 1840's, the widow of Principal Osgood Johnson devoted herself to the care of sick Seminary students at Samaritan House, built and named for that purpose, now a student dormitory. In spite of this, rows of gravestones mark the toll of epidemics. An Academy graduate of 1890 reports that no such care as Widow Johnson's was available to the Academy students of the 1890's: "There was no infirmary. If you were ill, it was nobody's business but your roommate's, who brought you meals from Marland's unappetizing fare."

The Isham Infirmary of Phillips Academy is fully licensed as a hospital by the Commonwealth of Massachusetts. The Infirmary has an x-ray department with a full-time technician. Laboratory services are provided by Bon Secours Hospital in nearby Methuen, on specimens delivered there. Qualified physiotherapists are available either in the Infirmary or Trainer's Room. Graduate nurses are on duty twenty-four hours daily, and additional graduate nurses manage the Outpatient Services from 7:30 a.m. to 5:00 p.m. Isham Infirmary is staffed and equipped to care for most problems, and nearby general hospitals are available for major surgery or serious emergencies.

In addition to the daily outpatient clinic held by the Medical Director, regular clinics are conducted at Isham Infirmary in dermatology, orthopedics, and dentistry. Staff consultants are available in most specialty fields of practice, and full-time clinical psychologists can provide professional counseling.

## Admissions

### APPLICATION PROCEDURE

Priority will be given to those candidates who complete the application procedure, including the interview, by February 1. They may expect a decision from the Admissions Committee by March 10. The possibility of admission is considerably lessened for all applicants who complete the process after February 1, and decisions for this group may not be rendered before May 1. It is also possible that 12th Grade and Postgraduate candidates will not be notified until late spring. A deposit of \$100 is required to reserve a place at the time admission is offered to an applicant.

### The four steps for Application

- 1** Submit the Preliminary Application Card and the non-refundable \$15 fee as soon as possible. (Checks are payable to the Trustees of Phillips Academy.)
- 2** Complete the Personal Interview Requirement. Candidates must complete the required interview by February 1st. Candidates are urged to schedule interviews in either the spring, summer, or early fall of the year before they intend to matriculate. It is in everyone's best interests for the interview to take place as early as practicable. A visit to the Academy is desirable as it gives candidates a chance to have questions answered and to see the school. Please allow two hours for the tour and interview and be sure to dress with the weather in mind. Candidates who cannot visit the Academy are themselves responsible for arranging an interview with an Alumni Representative. (See page 56).
- 3** Return the Final Application Forms. Final Application Forms are mailed in mid-November to candidates who have submitted a Preliminary Application card for the following fall. Forms should be returned within three weeks of receipt. (Late applicants should return forms immediately.)
- 4** Take the Secondary School Admissions Test. (12th Grade or Postgraduate candidates should refer to the information on the next page.)





### Secondary School Admissions Test

The Bulletin of Information for Candidates, published by the Educational Testing Service, Princeton, NJ 08540, will be sent by Andover to all 1980-1981 candidates who have filed a Preliminary Application. This Bulletin describes the Secondary School Admissions Test, which will be given on the following dates:

December 8, 1979	March 3, 1979
January 19, 1980*	April 26, 1980*
June 21, 1980	

\*International administration

Candidates are strongly urged to take the SSAT administered in December, 1979. (The December tests will not be given in foreign countries.) Otherwise, the candidate should take the January, 1980 administration.

### Twelfth Grade or Postgraduate Candidates

Instead of the Secondary School Admissions Test, Senior and Postgraduate candidates must take the Preliminary Scholastic Aptitude Test or the College Board Scholastic Aptitude Tests. (C.E.E.B., Box 592, Princeton, NJ 08540). After the test date candidates must ask the College Board, in writing, to send all test results to Phillips Academy. A check or money order for \$2 made out to C.E.E.B. must accompany that request.

Postgraduates are full-fledged members of the Senior Class and are eligible for all school activities. Because of their academic credits, they frequently have maximum flexibility in course selection.

### Whom to Contact at Andover

If you have questions about Andover's admissions or application procedures, please contact the Admissions Office.

Director of

Admissions: Joshua L. Miner

Address: Admissions Office  
Phillips Academy  
Andover, Massachusetts 01810

Office hours: Monday through Friday, 9:00 a.m. to 5:00 p.m.  
Saturday, 9:00 a.m. to 12:00 noon

Telephone: 617/475-3400

### Early Decision

Andover will not participate in any early decision plan for admissions in September, 1980.

### "Youth From Every Quarter"

The school's constitution, written in 1778, states that Andover "shall be ever equally open to youth of requisite qualifications from every quarter." With this principle in mind, the basic requirement for admission to Andover today continues to be evidence of sound character and strong academic achievement. The school is especially interested in candidates who demonstrate maturity and concern for others in addition to high performance in particular studies or activities. Valuing diversity in its student body, the school seeks to bring together a community from all parts of the country and from many nations.

The Admissions Committee selects from over 3,000 candidates the 400 most promising and deserving young people. The school's endowment covers approximately one-third of the cost of an Andover education. Therefore, in fact, every student receives financial aid. In addition, thanks to the generosity of a large number of alumni and friends, further financial assistance is available (see Financial Aid Section).

## School Costs and Financial Aid

### Tuition 1979—80

Annual tuition for 1979-80 is \$3555 for both boarding students and day students. Day students *must* live in Andover, North Andover, North Reading, Methuen or Lawrence.

### Fees

In addition to tuition, Annual Fees will apply as follows:

	<u>Boarding</u>	<u>Day</u>
Room	\$ 910	\$ —
Meals	700	435
Athletics and Activities	125	125
Health	110	85
Sub Total	1845	645
Tuition	3555	3555
Total Cost	\$5400	\$4200

Phillips Academy admits students of any sex, race, color, national and ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to its students at the school. It does not discriminate on the basis of ancestry, color, creed, national and ethnic origin in administration of its educational policies, admissions policies, scholarship and financial aid programs, and other school administered programs.

One half of the above tuition and fees is payable on August 1, and one half on December 1.

Payments may be made instead in ten equal monthly installments starting on August 1 and ending on May 1. A one percent service charge is made for this plan. Another alternative is the use of the Insured Tuition Payment Plan, arranged with a private agency. Information about these two alternatives and application forms are sent to parents before the first bill is due.

No rebate will be made against the amount of the installment due on August 1 for any student who for any reason is dismissed or withdrawn after registration in the fall. No rebate will be made against the installment due on December 1 for any student who is dismissed or withdrawn after returning to school at the beginning of the winter trimester.

These charges cover instruction, board, room (including basic furniture), physical training and most athletic privileges, use of laboratory equipment and material, admission to all authorized athletic contests and most authorized entertainments at George Washington Hall or elsewhere on campus, including the Saturday evening motion pictures.

The school charge does not include tutoring, language training, special instruction in music or certain athletics, materials fees for art courses, medical expenses, laundry, textbooks, dues to school organizations or breakage and damage to school property. The school charge does not include cost of participation in the Washington Intern Program, School Year Abroad, or other off-campus programs. The school provides uniforms and most athletic equipment. Students are required to bring their own footwear and urged to bring along whatever other personal athletic equipment they already possess. Bills for items not included in the school charges may be rendered at any time during the school year.

All charges must be paid by their due date in order to assure a student's place at the Academy. Students with past-due bills may be terminated at any time. The diploma of the Academy will not be awarded to Seniors whose school accounts are not paid in full by June 1.

## Other Expenses

As a rough guide to parents in budgeting for the total expected expenses of each academic year, the following low-average approximations of extras are given:

Travel	According to home location	
Athletic equipment		\$ 75.00
Laundry and Cleaning		150.00
Medical Insurance (optional)		35.00
Books and supplies		225.00
Dues, publications and charitable contributions		20.00
Breakage Deposit (refundable)		50.00
Miscellaneous, including spending money		120.00

## Financial Aid: The Andover Plan

Phillips Academy will do its best to see that no admitted student is denied the chance to attend due to inability to finance his or her education here. To that end, the Academy provides over \$1,000,000 in direct financial aid each year, in addition to endowment support for all students. Under the comprehensive Andover Plan, families with incomes of up to \$50,000 a year may qualify for some form of direct assistance from the Academy.

The Andover Plan consists of three parts:

1. General support of all students' educational cost, principally through income from the school's \$64,000,000 endowment, a product of the generosity of past Andover graduates,





parents and friends. This income pays more than 35 percent of the real costs of the educational services Andover actually offers.

- II. Scholarships supplemented, as necessary, by a Student Loan Plan, for qualifying students, ranging from several hundred dollars to total costs, as needs warrant and funds permit, based upon information provided through the School Scholarship Service in Princeton, NJ. Repayment of low interest Student Loans begins four years after graduation, with an additional four years allowed for completion. Each family indicating a need for assistance on the Preliminary and Final Application Forms will be mailed a Parents' Financial Statement which is processed by the School Scholarship Service in Princeton, NJ. *All awards are reviewed annually and a Parents' Financial Statement must be filed each year if continued aid is needed.*
- III. A new Parent Loan Plan, available, at a modest rate of interest, to families in the \$15,000 to \$50,000 income range, as their needs require, with preference given to students entering ninth and tenth grades. Repayment of these loans begins immediately, but repayment of the principal is deferred during the students' college years and then continues for two additional years.

The combination of general endowment support with the programs of Scholarships for low income students, Scholarships and Student Loans for a broad spectrum of need, and Parent Loans for middle and upper income families gives Andover the flexibility to provide maximum assistance to families seeking an Andover education.

Requests for aid filed after the January 15th deadline may not be processed in time to be included in the initial allotment of scholarship funds. Requests filed after January 15 must wait subsequent availability of scholarship monies.

## Alumni Representatives

While it is advisable from the student's point of view to visit the school, frequently distance renders a visit impractical. When this is the case, the candidate should write or telephone for an interview with the most conveniently located Alumni Representative. (Please see list on page 51). When you arrange for an interview with an Alumni Representative, please notify the Andover Admissions Office of the date of the interview and the name of the interviewer. This procedure will help us keep your records up to date. A candidate unable to arrange for an Alumni Representative Interview should communicate with the Admissions Office for assistance.

### Admissions Interview Schedule

During the coming school year the representatives from the Administration plan to be in the following cities:

September 24-25	Montreal
October 1-5	Los Angeles/San Francisco/ Portland/Seattle
October 8-12	Eau Claire/Minneapolis/Cleveland/Detroit/Chicago
October 22-26	Atlanta/St. Louis/Louisville
October 29- November 2	Midland/Houston/Dallas/New Orleans

Candidates who wish to be interviewed in one of these cities should make arrangements in advance. This may be done by notifying our Admissions Office or by calling the local Alumni Representative whose name is preceded by an asterisk.



# ALABAMA

## Birmingham

Miss Jacqueline Carter '72  
P.O. Box 7964 35228

Robert B. Donworth, Jr. '42  
Bradley, Arant, Rose & White  
Suite 1500, Brown-Marx Bldg.  
2000 First Avenue North 35203

## Mobile

David F. Dean, M.D. '56  
612 Montclair Way West 36609

# ALASKA

## Anchorage

John K. Brubaker '55  
2110 Otter Street 99504  
Howard S. Reed '45  
6112 Prosperity Street 99504

## Douglas

Peter B. Eakland '63  
P.O. Box 610 99824

## Fairbanks

K. Andre McMullen '66  
5003 Dartmouth Road 99701

# ARIZONA

## Litchfield Park

George T. French '29  
P.O. Box 578  
609 North Litchfield Road 85340

## Scottsdale

Mrs. William E. Dampier '47  
4721 North 70th Street 85257

## Tucson

Keith S. Brown '31  
3200 North Swan Road 85716  
John S. Greenway '42  
1634 North Olsen Avenue 85719  
Donald B. Rollings '70  
3801 E. Calle Barcelona 85716

# ARKANSAS

## Forrest City

Henry Loeb III '39  
Growers Equipment Co.  
P.O. Box 748 72335

## Little Rock

Mose Smith III, M.D. '48  
5326 West Markham Street 72205

# CALIFORNIA

## Arcadia

Reginald D. Barnes, Jr. '58  
557 Gloria Road 91006

## Davis

Donald M. Reynolds '38  
4 Parkside Drive 95616



## Fresno

Geoffrey M. Brittin, M.D. '52  
5688 Columbia Drive South 93727

## Irvine

John E. Kidde '64  
4881 Royce Road 92664

## Los Altos

Philip J. Kann '71  
327 Lunada Court 94022

## Los Angeles

\*David A. Cathcart '57  
Gibson, Dunn & Crutcher  
515 South Flower Street 90071  
Robert J. Cathcart '64  
707 Wilshire Boulevard  
Suite 3200 90017  
George W. Davis III, M.D. '52  
4616 Keniston Avenue 90043  
Walter L. Farley, Jr. '28  
12300 1st Helena Drive 90049  
Trevor A. Grimm '56  
Kaplanis & Grimm  
551 South Oxford Avenue 90020  
John J. Leone '66  
2212 Mandeville Canyon Road  
90049  
Thompson K. Vodrey '52  
840 South Fairfax Avenue 90036

## Marysville

Harold S. Edwards '28  
770 Ramirez Road 95901

## Mill Valley

Peter W. Lee '60  
80 Montecimas Avenue 94941

## Pacific Palisades

Mrs. Peter R. Mann '49  
1422 No. Capri Drive 90272

## Palo Alto

Henry E. Riggs '53  
634 Lowell Avenue 94301  
Donald A. Way '63  
P.O. Box 1588 94302

## Pasadena

Russell M. Decker '56  
691 Holladay Road 91106

## \*Graeme Henderson '52

1613 Vista Lane 91103

## Riverside

Peter C. Parsons '55  
Riverside County Publishing Co.  
P.O. Box 8368 92505

## Ross

H. Leonard Richardson '45  
1 Circle Drive 94957

## San Diego

Norman R. Allenby '51  
3222 Quimby Street 92106

## San Francisco

Letitia Upton Brown '63  
2940 Clay Street 94115

## \*Alan L. Fox '60

415-572-3445

Patrick J. O'Hern '65  
3559 Jackson Street, #20 94118  
Thomas E. Pollock, III '61  
Thayer, Ringoen & Macdonald  
50 California Street, 26th Floor  
94611  
William W. Sterling '57  
Heller, Ehrman, White & McAuliffe  
30th Floor  
44 Montgomery Street 94104

## San Rafael

William S. Creighton '39  
32 Woodoaks Drive 94903

## Santa Barbara

Mancel T. Clark, Jr. '28  
895 Lilac Drive 93108  
Sebastopol  
William D. Lynch '38  
10592 Occidental Road 95472

## Shingle Springs

Marshall T. Gleason '33  
3067 Cambridge Road 95682



## COLORADO

### Aspen

Stephen W. Harris '38  
P.O. Box 1653 81611

John P. McBride '56  
105 Pacific Avenue 81611

### Colorado Springs

Mrs. William Boddington '41  
1433 Alamo Avenue 80907

### Denver

\*Peter Grant '49  
545 Race Street 80206  
John F. Malo '40  
1108 15th Street  
Suite 807 80202  
David C. Wilhelm '38  
204 Livestock Exchange Bldg. 80216

### Glenwood Springs

Rev. George P. Pierce '49  
546 Hyland Park Drive 81601

## CONNECTICUT

### Darien

David E. Winebrenner '58  
27 Briar Brae Road 06820

### Fairfield

Kenneth D. Krier '68  
75 Lally Boulevard 06430

### Greenwich

Gerard E. Jones '55  
Deer Lane 06830  
Roger S. Seymour '44  
50 Porchuck Road 06830

### New Canaan

Charles Hirschler '72  
SMART, Inc.  
Box 25, 134 Main St 06840

### Westport

Robert B. Simonton '50  
25 Woody Lane 06880

## DELAWARE

### Wilmington

Mrs. Robert Bryant '65  
2309 Saymore Road 19805  
Mrs. Reeves W. Hart, Jr. '47  
18 Briar Road, Briarwood 19803

## DISTRICT OF COLUMBIA

### Washington

George W. Beatty '50  
3438 34th Place, N.W. 20016  
Lawrence C. Dalley, Jr. '45  
Brand, Dalley & Co.  
888 17th Street, N.W. 20006  
Andrew P. Ireland '48  
1513 Longworth Bldg. 20515  
J. Kenneth McDonald '50  
History Department  
George Washington University  
20052

## FLORIDA

### Gainesville

Richard M. Cohen '61  
4313 N.W. 32nd Street 32605

### Jacksonville

Arthur W. Milam '45  
Milam & Wilbur  
P.O. Box 58 32201  
Robert D. Van Cleve '50  
Riverside Clinic  
2005 Riverside Avenue 32204

### Key Biscayne

Carlos M. de la Cruz '59  
300 Island Drive 33149

### Miami

Mrs. Constantinos Emmanuel '54  
6971 S.W. 134th Street 33156  
David J. Williams II '38  
13815 S.W. 84th Street 33143

### Naples

Robert W. Hattermer '49  
440 Spinnaker Drive 33940

### Sarasota

Parker C. Banzhaf '38  
3435 Sea Grape Drive 33581  
Michael T. Madison '65  
The Marie Selby Botanical Gardens  
800 S. Palm Avenue 33577  
John D. Pitts '56  
324 Bob White Way 33577

### Tallahassee

Jerry L. Draper '57  
2012 Cynthia Drive 32303

### Winter Haven

Richard C. Cheney '48  
1826 Sixth Street, S.E. 33880

## GEORGIA

### Atlanta

D. Hayes Clement '54  
Arthur Andersen & Co.  
25 Park Place, N.E. 30303  
Herbert R. Elsas '28  
Sutherland, Asbill & Brennan  
3100 First National Bank Tower  
30303  
Ernest G. Matton '55  
2815 Ridge Valley Road, N.W.  
30327

### \*Peter C. Mohr '54

1035 Angelo Court, N.E. 30319



*Augusta*

Samuel C. Dysart, Jr. '46  
809 Aumond Place West 30909

*Columbus*

William S. Cain, Jr. '40  
P.O. Box 2125 31902

*Savannah*

William C. Rhangos, M.D. '49  
Savannah Orthopedic Clinic, P.C.  
5212 Paulsen Street 31405

*HAWAII*

*Honolulu*

Mrs. Kyran M. O'Dwyer '55  
6240 Keokea Place 96825  
Thomas L. Stirling '59  
Kelso, Spencer, Snyder & Stirling  
Suite 1800  
745 Fort Street 96813

*IDAHO*

*Boise*

Richard W. Hirst '28  
1210 Happy Drive 83704

*ILLINOIS*

*Chicago*

Joseph S. Beale '55  
Hawthorn Realty Group  
120 S. LaSalle Street 60603  
Robert B. Stearns '70  
Booz, Allen & Hamilton  
135 S. LaSalle Street 60603

*Kenilworth*

Mrs. Rita Kallman '52  
535 Brier Street 60043

*La Grange*

\*Ronald J. Floto '61  
219 S. Spring Avenue 60525

*Peoria Heights*

Robert T. Stevenson, Jr. '53  
4849 Grand View Drive 61614

*Quincy*

Mrs. Gary P. Hull '58  
RR #5 62301

*Springfield*

Jon G. Noll '66  
Mrs. Jon G. Noll '66  
#5 Hackberry Lane 62704

*Wilmette*

W. Newton Burdick, Jr. '35  
1630 Sheridan Road, Apt. 8L  
60091 (Office: Pandick  
Press, Inc., 111 North  
Canal Street, Chicago 60606)  
Carey Orr Cook '61  
832 Forest Avenue 60091

*INDIANA*

*South Bend*

Mrs. Robert E. Oswald '56  
3102 South Miami Street 46614

*IOWA*

*Des Moines*

Paul M. Nelson '68  
4112 Lynner Drive 50310

*Iowa City*

Roger D. Milkman '47  
R.R. #6, Box 204  
12 Fairview Knoll 52240

*Waterloo*

Craig W. Nordeen '70  
3917 Del Matro Road 50701

*KANSAS*

*Junction City*

John G. Montgomery '58  
Montgomery Publications, Inc.  
814 North Washington Street 66441

*Stilwell*

James J. Fisher '56  
Route #1, Box 242 66085

*KENTUCKY*

*Bowling Green*

B. Harris Todd III '71  
613 Hampton Road 42101

*Louisville*

H. Hewett Brown '55  
Mutual Benefit Life Insurance Co.  
P.O. Box 70289  
100 East Liberty Street 40202



Alexander C. Browne '60  
Almstedt Bros.  
425 W. Market Street 40202  
Samuel S. Caldwell, Jr. '29  
W.R. Willett Lumber Co., Inc.  
849 Starks Building 40202  
\*Philip J. Sorota, D.C. '63  
2520 Hikes Lane-Willmar Avenue  
40218

*LOUISIANA*

*New Orleans*

Marshall L. Posey, Jr. '55  
2302 St. Charles Avenue 70130

*Shreveport*

Donald A. Raymond, Jr. '32  
1132 Erie Street 71106

*MARYLAND*

*Annapolis*

H. Richard Duden '43  
Ferry Farms  
N.A. Branch P.O. 21402

*Garrett Park*

Thomas Rodes '54  
Box 36 20766

*Owings Mills*

James L. Shea '70  
Rt. 3, Burnside Farm 21117

*Oxon Hill*

Andrew J. Combe '60  
9104 Locksley Road 20022

*MICHIGAN*

*Ann Arbor*

George R. Ireland '74  
305 Ann Street 48104

*Birmingham*

Mrs. William Reepmeyer '61  
440 Chesterfield 48009







*Bloomfield Hills*

Gilbert R. Bamford '58  
804 No. Valley Chase 48013

*Detroit*

James N. Candler, Jr. '60  
c/o Dickinson, Wright, McKean,  
Cudlip & Moon  
800 First National Bldg. 48226

*Farmington Hills*

Peter G. Pappas '63  
25282 Rutledge Crossing 48018

*Grand Rapids*

Nathan A. Lee '74  
Johnson & Dean, Inc.  
302G Waters Bldg. 49503  
Lloyd W. Moseley, Jr. M.D. '59  
1753 Breton Road, S.E. 49506

*Grosse Pointe Shores*

William D. Dahling '46  
60 Hawthorne Road 48236

*Leland*

George A. Ball II '49  
603 North Lake Street 49654

*Troy*

Frederick G. Bahr '47  
Dean, Bahr, Miko & Dean, P.C.  
Northfield Financial Bldg., 12th Fl.  
900 Tower Drive 48098

**MINNESOTA**

*Arden Hills*

Christopher L. Bretoi '72  
4439 Arden View Court 55112

*Duluth*

Oliver M. Houx '57  
2727 East 7th Street 55812

*Long Lake*

Thomas M. Crosby, Jr. '56  
1612 Willow Drive 55356

*Madison*

Mrs. Robert Bly '47  
Odin House, RFD 2 56256

*Minneapolis*

Benjamin R. Field III '57  
Bemis Company, Inc.  
800 Northstar Center 55402

*Rochester*

Douglas G.B. McGill, M.D. '47  
303 S.W. 6th Avenue 55901

*Wayzata*

J. Kimball Whitney '46  
559 Harrington Road 55391

**MISSISSIPPI**

*Purvis*

Michael R. Eubanks '58  
Eubanks & Temple  
Courthouse Square  
P.O. Box 696 39475

*Senatobia*

R. Carl Horn '55  
P.O. Box 5355 38668

*University*

Kenneth O. McGraw '62  
Department of Psychology  
University of Mississippi 38677

**MISSOURI**

*Columbia*

George C. Miller '35  
600 South Greenwood 65201  
David B. Rogers '59  
2406 Ridgfield Road 65201

*Jefferson City*

Benner C. Turner '23  
411 Hickory Street 65101



*Joplin*

Lawrence S. Crispell, M.D. '38  
200 Center Bldg., Suite 30  
20th and Connecticut 64801

*St. Joseph*

Robert A. Brown, Jr., '49  
510 A Francis Street 64501  
F. Gregg Thompson, M.D. '47  
2714 Ashland Avenue 64506

*St. Louis*

\*Jeremy T. Johnstone '48  
36 Rio Vista Drive 63124  
Mrs. Robert D. Mudd, Jr. '59  
7 Country Aire 63131  
Peter W. Schandorff '64  
c/o John Burroughs School  
755 S. Price Road 63124  
John Shepley '42  
9450 Old Bonhomme 63132  
William M. Van Cleve '46  
8 Dromara Road 63124  
Eugene F. Williams '42  
701 Barnes Road 63124

**MONTANA**

*Missoula*

Herbert D. Adams, M.D. '57  
The Western Montana Clinic  
501 West Broadway 59801

**NEBRASKA**

*Lincoln*

Andrew F. Cunningham '67  
850 South 34th Street 68510

*Omaha*

William E. Brush, M.D. '68  
4821 Chicago Street, #15 68132  
Philip S. Kemp '43  
740 North Happy Hollow Blvd.  
68132

**NEVADA**

*Deeth*

William B. Wright, Jr. '50  
Mary's River Ranch 89823

*Las Vegas*

William B. A. Bentley, M.D. '42  
2804 Mason Avenue 89102

*Reno*

Robert S. Kimball III '51  
Paine, Webber, Jackson & Curtis, Inc.  
100 North Arlington Avenue 89501





## NEW JERSEY

### Somerville

Roderick M. McNealy '68  
16 Old Village Road 08876

### Westfield

Mrs. William Timmins '59  
710 Clark Street 07090

### Wyckoff

Kenneth E. MacWilliams '54  
470 Sicomac Avenue 07481

## NEW MEXICO

### Albuquerque

\*John P. Eastham '45

P.O. Box 1888 87103

Gregory H. Illanes, Jr. '38  
424 12th Street, N.W. 87102

George F. Peters '62  
906 11th Street, N.W. 87102

### Santa Cruz

Thomas W. Mayer '61  
P.O. Box 171 87567

## NEW YORK

### Bedford

John H. Odden '63  
Rippowam-Cisqua School  
Box 488 10506

### Binghamton

David J. Adzigan '58  
405 Manchester Drive 13903

### Briarcliff Manor

Richard C. Gallop '56  
Nichols Place 10510

### Buffalo

Walter F. Stafford, Jr., M.D. '38  
24 Tudor Place 14222  
John N. Walsh, Jr. '39  
25 St. Catherines Court 14222

### Geneseo

John P. Linfoot '58  
Youngs & Linfoot, Inc.  
62 Main Street 14454  
Jon H. Porter '58  
71 Center Street 14454

### Larchmont

Oliver Barres '39  
2 Bayard Street 10538

### New York City

Peter M. Capra '53  
118 East 93rd Street 10028  
Reginald B. Collier '45  
136 East 80th Street 10021  
William D. Hart, Jr. '36  
Whitman & Ransom  
522 Fifth Avenue 10036  
Sven E. Hsia '59  
35 East 85th Street 10028  
John D. Lynch '46  
J. & W. Seligman & Co.  
One Bankers Trust Plaza 10006  
Roger L. Strong '44  
30 East 71st Street, Apt. 9A 10021  
Mrs. Oscar L. Tang '57  
120 East End Avenue 10028  
Frederic C. Thomas '46  
20 Waterside Plaza  
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### Pompey

William M. Tuck '54  
Sweet Road 13138

### Rochester

Bruce B. Bates '49  
87 Grosvenor Road 14610



### Scarsdale

Howard T. DuBois '43  
11 Lenox Place 10583

### Syracuse

David H. Northrup '32  
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## NORTH CAROLINA

### Advance

John T. Winebrenner '60  
Box 774, Bermuda Run 27006

### Chapel Hill

\*James R. Adriance '28  
16 Rogerson Drive 27514  
Douglas W. Torrington '63  
107 Virginia Drive 27514  
Peregrine White '29  
817 Old Mill Road 27514

### Charlotte

E. Osborne Ayscue '51  
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2800 North Carolina National Bank  
Plaza 28280

### Winston-Salem

James C. Frenzel '63  
3501-B Trafalgar Square 27106  
Hollister Nelson '56  
905 Marguerite Drive 27106

## NORTH DAKOTA

### Bismarck

Jonathan Weisbuch, M.D. '55  
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## OHIO

### Chagrin Falls

Edward T. Bartlett III '56  
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### Cincinnati

Rt. Rev. Henry W. Hobson '10  
3580 Shaw Avenue 45208  
Wilford L. Romney '19  
2401 Ingleside Avenue  
Apt. 11E 45206  
Thomas S. Shore, Jr. '57  
Rendigs, Fry, Kiely & Dennis  
907 Central Trust Tower 45202

### Cleveland

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44114  
Joseph A. Valencic '72  
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### Cleveland Heights

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Gaylord E. Smith '57  
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*Dayton*

Craig Zimmers '67  
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*Granville*

G. Wallace Chessman '37  
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**OREGON**

*Eugene*

George H. Hughes, M.D. '59  
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\*Broughton H. Bishop '45  
Pendleton Woolen Mills  
P.O. Box 1691 97207  
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2373 Johnson, N.W. 97210  
Frederick J. Kingery, M.D. '45  
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*Allentown*

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*Bryn Mawr*

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*Erie*

Edward M. Mead '45  
Times Publishing Company  
205 West 12th Street 16501

*Indiana*

Joseph N. Mack '44  
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*Philadelphia*

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3820 Locust Walk 19174

Jay A. Cohen '72  
1512 Spruce Street  
Apt. 1701 19102

Armory M. Sommaripa, M.D. '48  
529 Cresheim Valley Road 19118



*Pittsburgh*

J. Evans Rose, Jr. '50  
Rose, Schmidt and Dixon  
Ninth Floor, Oliver Bldg. 15222  
Mrs. Ferd J. Sauereisen '54  
110 Marvelwood Place 15215

*Sewickley*

Mrs. W. Richard Jackson, Jr. '53  
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Edward O'Neil '27  
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Jonathan Vipond III '63  
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*Memphis*

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1991 Corporate Avenue 38132

**TEXAS**

*Austin*

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6105 Highland Hills Drive 78731

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James E. Liles '55  
Big Bend National Park 79834

*Dallas*

\*N. Bruce Calder '41  
4800 Park Lane 75220  
Hubert A. Crouch III '69  
Wynne & Jaffe  
1000 LTV Tower 75201  
John T. Lansing '62  
9403 Faircrest 95238  
John R. Sears '36  
Republic National Bank of Dallas  
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4 Shadowlawn Road 77005  
James H. Lee '67  
1111 Briarmead Drive 77057  
Christopher L. Rafferty '66  
8605 La Fonte Street 77024

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1405 Community Lane 79701

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832 Ridgfield 75074

**UTAH**

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Lincoln D. Clark, M.D. '42  
5492 Merlyn Drive 84117  
C. Chauncey Hall, M.D. '41  
2652 East 6200 South 84121  
Robert L. Lux '62  
1904 South 25th East 84108

**VERMONT**

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William Cruikshank, Jr. '59  
RFD #2 05448

*Hyde Park*

Cadwallader E. Brooks '59  
R.D. 05655

*Middlebury*

C. Andrew Kaiser '45  
Box 707 05753



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William T. Semple II '64  
813 Chetworth Place 22314

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Christopher D. Costanzo '59  
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### Harrisonburg

Frederick L. Fox, M.D. '60  
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Mrs. Robert S. Bozarth '63  
1103 E. Durwood Cres. 23229  
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5018 Grassmere Road 23234  
Miss Dearing Ward '59  
227 Gun Club Road 23221

## WASHINGTON

### Bainbridge Island

Holt W. Webster '39  
15369 Broom Street, N.W. 98110

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Lucius H. Biglow, Jr. '42  
2425 Evergreen Point Road 98004  
Frederick W. Hayes '45  
212 Overlake Drive East 98004  
Walter S. Kimball, M.D. '30  
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Evergreen Point 98004

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8300 S. E. 83rd Street 98040

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15 Grosscup Road 25314

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McArdle Lab 53706  
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P.O. Box 1516 82601

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Le Bercuit, 4, 5980

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Bell-Northern Research  
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K1Y 4H7

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Geoffrey D. Perry '65  
207 Erskine Avenue  
M4P 125

Andrew E. Tuck III '52

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330 University Avenue M5G 1R8

Einar J. Westerlund '58  
Westerlund—Emond Limited  
60 St. Clair Avenue, East  
Suite 406  
M4T-1N5

### Montreal, Quebec

Donald M. MacFarlane '63  
4316 Prince of Wales H4B 2U9  
James C. Taylor '56  
3269 Cedar Avenue H3Y 1Z6

## CENTRAL AMERICA

### San Salvador, El Salvador

Jean-Paul Joseph '68  
Ruben Dario 1236  
Apartado 63





CHINA

*Hong Kong*

William S. Cheng '60  
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Fortune Terrace  
Kowloon  
Harland Chun '72  
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Hua-Hsia Bldg., 12th Floor  
64-66 Gloucester Road

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SW5  
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Morgan Guaranty Trust Co.  
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33 Lombard Street  
EC3P 3BH

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*Paris*

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Compagnie Internationale de  
Services en Informatique  
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IRAN

*Tehran*

Gail F. Borden  
Post Office Box 3318

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*Tokyo*

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Am. Embassy Kuwait  
c/o Dept. of State  
Washington, DC 20520

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*Guaynabo*

Jorge R. Gonzalez '62  
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Villa Caparro 00657

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Procter & Gamble  
GPO Box 3187 00936  
Guillermo E. Gonzalez, Jr. '50  
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Caparra Heights Station 00922

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*Dhahran*

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ARAMCO  
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Greenleaf H. Smith '63  
c/o American Embassy  
Liaison Office  
APO New York 09038

SOUTH AMERICA

*Quito, Ecuador*

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*Caracas, Venezuela*

Armando Bacalao '65  
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SWITZERLAND

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John R. Thompson '41  
Firestone Schweiz  
4133

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Heimeran von Stauffenberg '54  
Im Brächli 56  
8053

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*Bangkok*

Piya Chakkaphak '48  
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11

VIRGIN ISLANDS

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Estate Misgunst Box 5170 00801

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U.S. Information Service  
U.S. Mission Berlin  
Clay Allee 170

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Edwin A. Hopkins '56  
Gutenbergstrasse 10  
463

*Hamburg*

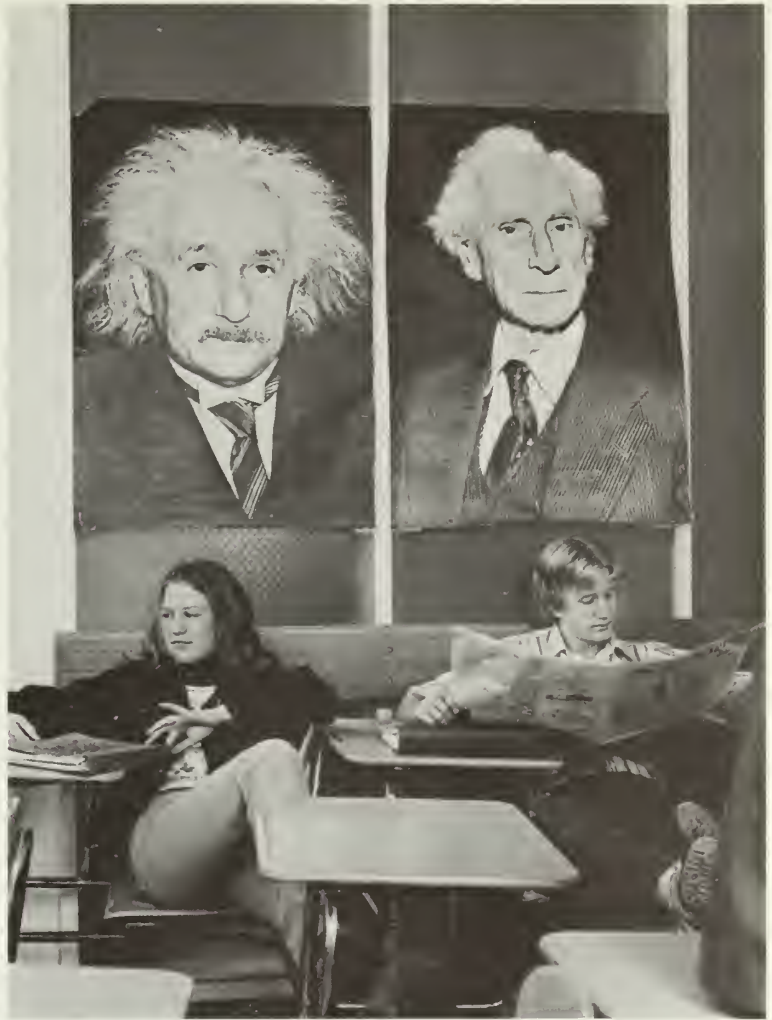
Friedrich K. Gomer '40  
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2000 Hamburg 13

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elected President 1968  
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A.B., M.A.T., Ph.D., Ped.D., Litt.D.  
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*Treasurer*

elected 1969

elected Treasurer 1976

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A.B., LL.B.

elected 1960

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Andover, Massachusetts

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A.B., D.Sc., Litt.D., L.H.D., LL.D.

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Perrysburg, Ohio

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A.B.

elected 1974

New York, New York

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A.B., M.B.A.

elected 1976

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■ on leave of absence 1978-79





## FACULTY 1978-79

The date following the name indicates the year the instructor joined the Andover faculty.

THEODORE RYLAND SIZER (1972)  
*Headmaster; Instructor in History and the Social Sciences*  
A.B., Yale; M.A.T., Harvard;  
Ph.D., Harvard; Ped.D.,  
Lawrence University; Litt.D.,  
Union College

FREDERICK SCOLLER ALLIS, JR.  
(1936)  
*Chairman of the Department of History and the Social Sciences; Instructor in History and the Social Sciences on the Independence Foundation Teaching Endowment*  
A.B., Amherst; A.M., Harvard;  
L.H.D., Amherst

WILLIAM HAYES BROWN (1938)  
*Instructor in English on the Independence Foundation Teaching Endowment*  
A.B., Harvard; M.A., Middlebury

MARIE MADELEINE BARATTE  
(AA1946)  
*Instructor in French*  
B.es.I., University de Rennes; A.B.,  
Dunfermline High School; M.A.,  
Edinburgh University

FREDERICK ALMOND PETERSON  
(1946)  
*Director of Research & Evaluation; Instructor in English on the Elizabeth Milbank Anderson Foundation*  
B.A., Yale; M.A., Harvard

PETER QUACKENBUSH McKEE (1947)  
*Associate Headmaster; Instructor in Physics on the Cecil F.P. Bancroft Foundation*  
B.A., Middlebury; Ed.M., Harvard

DOROTHY Y. JUDD (AA1948)  
*Instructor in Spanish*  
B.S., College of William and Mary;  
M.A., Columbia University;  
M.A., Middlebury

GORDON GILMORE BENSLEY (1949)  
*Instructor in Art on the Annie  
Wright Lancashire Foundation*  
A.B., Yale

JOHN RICHARD LUX (1949)  
*Chairman of the Mathematics  
Department; Instructor in  
Mathematics on the Walter Scott  
Leeds Teaching Foundation*  
B.S., Pennsylvania State  
University, M.S., Ed., University  
of Pennsylvania

WILLIAM LOUIS SCHNEIDER (1949)  
*Instructor in Music*  
Mus. Ed.B., Northwestern

SHIRLEY J. RITCHIE (AA1950)  
*Instructor in Physical Education*  
B.S., Trenton State College

FREDERIC ANNESS STOTT (1951)  
*Secretary of the Academy*  
A.B., Amherst

PHILIP BROWNLIE WELD (1951)  
*Chairman of the Chemistry  
Department; Instructor in  
Chemistry on the George  
Peabody Foundation*  
B.E., Yale; M.S., University of  
Michigan

WILLIAM FRANKLIN GRAHAM (1952)  
*Associate Dean, Instructor in  
Mathematics*  
S.B., University of Michigan

FRED HAROLD HARRISON (1952)  
*Instructor in History and the Social  
Sciences on the Samuel Harvey  
Taylor Foundation*  
A.B., Yale; A.M., Trinity

JOHN CLAIBORNE McCLEMENT (1952)  
*Instructor in Mathematics*  
A.B., Yale University; M. Ed.,  
University of Pittsburgh

JOSHUA LEWIS MINER, III (1952)  
*Director of Admissions*  
A.B., Princeton

JAMES HAROLD COUCH (1953)  
*Instructor in Spanish*  
A.B., M.A., University of Wyoming

SHERMAN FREDERICK DRAKE (1953)  
*Instructor in Mathematics*  
B.S., U.S. Naval Academy;  
Ed.M., Boston University

EDMOND EMERSON HAMMOND, JR.  
(1953)

*Instructor in Mathematics on  
Jonathan French Teaching  
Foundation*  
S.B., Haverford; Sc.M., Brown

LOUIS JOHN HOITSMA, JR. (1953)  
*Instructor in Mathematics*  
B.S., Ed.M., College of William  
and Mary

ROBERT PENNIMAN HULBURD (1953)  
*Director of Alumni Affairs*  
A.B., Princeton; A.M., Middlebury

DALTON HUNTER McBEE (1953)  
*Admissions Officer*  
A.B., Bard College in Columbia  
University

ALBERT KARL ROEHRIG (1954)  
*Director of Counseling, Acting  
Chairman of the Department of  
Psychology; Instructor in  
Psychology*

A.B., Amherst; Ed.D., Harvard

ROBERT EDWIN LANE (1955)  
*Instructor in Latin and Russian on  
the Alfred Ernest Stearns  
Foundation*  
B.A., M.A., University of California  
at Berkeley

HAROLD HOLMES OWEN, JR. (1955)  
*Chairman of Department of  
Theatre and Dance; Instructor in  
English and Theatre*  
A.B., Amherst; M.A., University of  
New Hampshire

THOMAS JOSEPH REGAN (1955)  
*Instructor in English on the Frederick  
W. Beinecke Teaching Foundation*  
B.A., Yale; M.A., Boston University

WILLIAM BIGGS CLIFT, JR. (1956)  
*Instructor in Music*  
B.S.M., Capital University  
Conservatory of Music

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*Dean of West Quadrangle South  
Cluster; Instructor in Mathematics*  
B.S.M.E., Princeton; M.A., Harvard

HARRISON SCHUYLER ROYCE, JR.  
(1956)  
*Instructor in History and the  
Social Sciences*  
A.B., Amherst; M.I.A., School of  
International Affairs, Columbia

GERALD SHIRTZER (1957)  
*Instructor in Art*  
B.F.A., M.F.A., Yale

GEORGE WILLIAM BEST (1958)  
*Instructor in Mathematics*  
B.S., Union College; A.M., Boston  
University

JOHN FRANK BRONK (1958)  
*Instructor in Physical Education  
and Physiotherapist*  
R.P.T., Nylin School

CLEMENT MORELL (1958)  
*Instructor in Mathematics*  
B.A., Northern Michigan; M.A.,  
University of Michigan; M.S.,  
University of Illinois

VIRGINIA POWEL (AA1959)  
*Instructor in Art on Abbot Academy  
Teaching Foundation*  
B.Des., Newcomb College

JOHN RICHARDS II (1959)  
*Chairman of the Cluster Deans;  
Dean of Rabbit Pond Cluster;  
Instructor in History and the  
Social Sciences on the Alfred  
Lawrence Ripley Foundation*  
A.B., M.A.T., Harvard

JOHN PATTEN CHIVERS (1960)  
*Chairman of the German Depart-  
ment, Instructor in German*  
A.B., Wesleyan; A.M., Middlebury

CARL EDWARD KRUMPE, JR. (1960)  
*Instructor in Classics*  
A.B., Wabash College; A.M.,  
Brown University

THOMAS REES (1960)  
*Instructor in Chemistry*  
B.E., M.S., Ph.D., Yale

GEORGE HOWARD EDMONDS (1961)  
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A.B., Amherst; Ed.M., Harvard

MARY SOPHIA MINARD (AA1961)  
*Instructor in History and the Social  
Sciences*  
B.A., Smith; M.A.L.S., Wesleyan

ALFRED JAMES COULTHARD (1962)  
*Instructor in Physical Education*  
S.B., Calvin Coolidge

- WAYNE ANDREW FREDERICK (1962)  
*Instructor in History and the Social Sciences on the Emilie Belden Cochran Foundation*  
B.S., Northeast Missouri State University; Ph.M., University of Wisconsin
- ROBERT ANDREW LLOYD (1962)  
*Chairman of the Art Department; Instructor in Art*  
B.A., Harvard; M. Arch., Harvard Graduate School of Design
- ALANSON PERLEY STEVENS III (1962)  
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B.A., M.A.T., Harvard
- BARBARA McDONNELL (1963)  
*Director of the Oliver Wendell Holmes Library*  
A.B., Boston University; B.L.S., Simmons
- MEREDITH PRICE (1963)  
*Associate Director of Admissions*  
A.B., Amherst; M.A.T., Harvard
- #JEAN MARY ST. PIERRE (AA1963)  
*Instructor in English*  
A.B., Wheaton; M.A., Columbia
- ALEXANDER ZABRISKIE WARREN (1963)  
*Instructor in Mathematics*  
A.B., Harvard; M.A.L.S., Wesleyan
- CHRISTOPHER CAPEN COOK (1964)  
*Director of the Addison Gallery of American Art; Instructor in Art*  
A.B., Wesleyan; M.F.A., University of Illinois
- DANIEL DRETZKA OLIVIER (1964)  
*Director of School Year Abroad, Rennes, France, through 1979-80; Instructor in French*  
A.B., Haverford; M.A., Middlebury
- VINCENT PASCUCCI (1964)  
*Chairman of the Division of Modern Language; Instructor in Classics and Modern Languages on the John Charles Phillips Foundation*  
A.B., M.A., Columbia
- AUDREY NYE BENSLEY (AA1965)  
*Instructor in Art*
- RONN NELS MINNÉ (1965)  
*Chairman of the Division of Science; Instructor in Chemistry on the Martha Cochran Foundation*  
B.S., A.M., Northwestern; Ph.D., Harvard
- ANGEL RUBIO Y MAROTO (1965)  
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Título de Bachiller, Universitario, Madrid, T5]tulo del Magisterio, Madrid; M.A., Washington University
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*Instructor in Dance*  
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- NATHANIEL BALDWIN SMITH (1965)  
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- THOMAS EDWARD CONE III (1966)  
*Chairman of the Biology Department; Instructor in Biology*  
B.S., Trinity; M.A.T., Brown
- MICHAEL EDWARD MOSCA (1966)  
*Director of Accounting*  
B.A., M.B.A., Boston University
- DAVID ALBERT PENNER (1966)  
*Scheduling Officer; Instructor in Mathematics*  
B.A., Amherst; M.A., University of Maryland
- JOHN GIBSON TOMLINSON (1966)  
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- KENNETH KELLY WISE (1966)  
*Chairman of English Department; Instructor in English*  
B.A., Purdue University; M.A., Columbia
- JAMES LEIGHTON BUNNELL (1967)  
*Director of Summer Session; Instructor in History and the Social Sciences*  
A.B., University of the South; A.M., Vanderbilt
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B.S., Michigan State University; M.S., Tufts University
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- SAMUEL IRVINE ALLISON ANDERSON (1968)  
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Andover, 1931-1974

WILLIAM RUSSELL BENNETT, JR., A.B.  
*Registrar, Emeritus*  
Kennebunk, Me. 1950-1974

JAMES RUTHVEN ADRIANCE, A.B.  
*Assistant to the Headmaster and  
Instructor in Religion, Emeritus*  
Chapel Hill, N.C. 1934-1975

FRANK FREDERICK DICLEMENTE, S.B.  
*Instructor in Physical Education,  
Emeritus*  
Andover, 1935-1975

HART DAY LEAVITT, A.B.  
*Instructor in English, Emeritus*  
Andover, 1936-1975

RICHARD SAWYER PIETERS, A.M.  
*Instructor in Mathematics, Emeritus*  
Dallas, Tex. 1938-1975

C. JANE SULLIVAN, Ed.M.  
*Director Abbot Alumnae Affairs,  
Emerita*  
North Andover, 1938-1975

CAROLYN ELIZABETH GOODWIN  
A.M.  
*Dean of the Academy, Instructor  
in Mathematics, Emerita*  
Andover, 1947-1976

ANNE LISE WITTEN, M.A.  
*Instructor in History and Social  
Sciences, Emerita*  
Montreal, Quebec, Canada, 1955-  
1976

WILLIAM ABBOT MUNROE, A.B.  
*Associate Treasurer, Emeritus*  
Andover, 1960-1976

WILLIAM JOHN BUEHNER, M.A.  
*Instructor in Latin, Emeritus*  
Andover, 1958-1977

HARPER FOLLANSBEE, Ed.M.  
*Instructor in Biology, Emeritus*  
Fitzwilliam, N.H. 1940-1977

STEPHEN WHITNEY, M.A.  
*Instructor in French, Emeritus*  
Rochester, N.H. 1936-1977

STEPHEN STANLEY SOROTA, B.S.  
*Instructor in Physical Education*  
Centerville, 1936-1978



# STATISTICAL INFORMATION for 1978-79



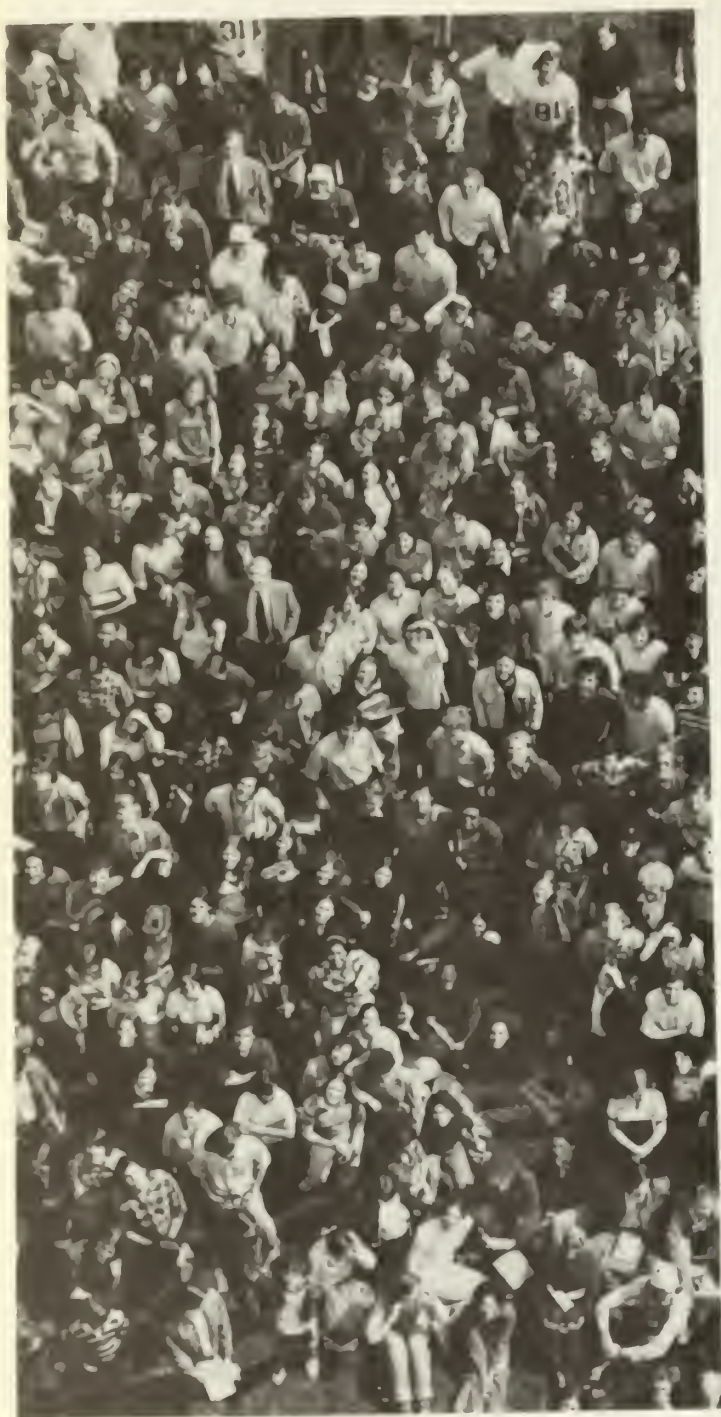
In 1864, Shimeta Neesima left Japan as a stowaway on the clipper ship "Wild Rover" for America and sold his samurai sword for a Chinese New Testament. He was adopted by the shipowner, an Andover Trustee, became Joseph Hardy Neesima, graduated from Andover in 1867, later from Amherst and the Andover Theological Seminary, and became the first Japanese to be ordained a Congregationalist minister. Neesima returned to Japan to found The Doshisha, a great university in Kyoto dedicated to Japanese and Christian ideals. Doshisha recently celebrated its 100th anniversary.

## Geographical Distribution

Alabama	2
Alaska	2
Arizona	2
California	42
Colorado	15
Connecticut	97
Delaware	2
District of Columbia	11
Florida	16
Georgia	3
Hawaii	1
Illinois	36
Indiana	1
Iowa	5
Kansas	2
Kentucky	1
Louisiana	5
Maine	25
Maryland	2
Massachusetts	382
Michigan	13
Minnesota	5
Mississippi	3
Missouri	6
Montana	2
Nevada	2
New Hampshire	23
New Jersey	37
New Mexico	1
New York	175
North Carolina	8
Ohio	31
Oregon	5
Pennsylvania	25
Rhode Island	7
South Carolina	3
South Dakota	1
Tennessee	8
Texas	12
Utah	1
Vermont	10
Virginia	12
Washington	2
Wisconsin	8
Wyoming	1
Afghanistan	1
Algeria	1
Bangladesh	1
Barbados	1
Belgium	1
Bermuda	2
Canada	6
Caribbean Islands	3
Chile	1
China (P.R. of)	1
Colombia	1
Costa Rica	1

France	5
Gabon	1
Germany	2
Hong Kong	3
Iran	1
Italy	2
Japan	1
Korea	3
Libya	1
Mexico	2
Norway	1
Saudi Arabia	2
Senegal	1
Singapore	1
South Africa	2
Spain	1
Switzerland	1
Turkey	1
Venezuela	2

	Total	Boys	Girls
Seniors	363	217	146
Uppers	334	211	123
Lowers	269	160	109
Juniors	140	86	54
Totals	1106	674	432
Total Boarding Students			915
Total Day Students			191
			1106



## College Admissions

Admission to colleges is not based on a student's mere presence at Andover, but is based on how well the student has used this experience. All selective colleges exercise judgments relative to factors over and above academic ability in selecting a freshman class. While some of these factors relate to exceptional talents in one area or another, others are related to diversity in background and educational objectives.

The college admissions picture is entirely different and infinitely more complex now than it was in past decades. Competition for admission to selective colleges is rigorous, and Andover students are encouraged to apply across a range of choices to colleges with varying degrees of selectivity. The one constant in all of this should be a real desire to educate oneself. To this end the College Counseling Office works with the class as a whole and with each candidate to help each one draw up a list of colleges that makes sense.

Phillips Academy seniors go to college well prepared for the academic program and social experience that lies ahead.

The Class of 1978 applied to 159 different colleges and matriculated at 91 colleges and universities across the country.

# College Matriculations for the Class of 1978

COLLEGE	AD- MITTED	MATRI- CULATED	COLLEGE	AD- MITTED	MATRI- CULATED	COLLEGE	AD- MITTED	MATRI- CULATED
Agnes Scott	1	1	Lewis & Clark	1	1	Tulane	22	7
Amherst	10	5	Univ. of Lowell	1	1	Union	10	3
Barnard	4	1	Loyola Univ.,			Vanderbilt	12	3
Barrington	1	1	Chicago	1	1	Univ. of		
Bennington	3	2	McGill	2	1	Vermont	37	11
Boston College	6	3	University of			Villanova	1	1
Boston			Maine	3	1	Univ. of		
University	6	1	M.I.T.	5	3	Virginia	7	2
Bowdoin	8	6	Univ. of			Washington	10	3
Brown	35	11	Massachusetts	23	3	Wellesley	3	1
Bryn Mawr	4	2	Univ. of			Wesleyan	36	17
Bucknell	3	1	Michigan	11	3	Wheaton	2	1
Cal Tech	2	2	Middlebury	13	6	Coll. of William &		
Univ. of			Mount Holyoke	3	1	Mary	2	1
California			Univ. of New			Williams	6	4
Berkeley	26	11	Hampshire	15	2	Univ. of		
Davis	2	1	New York	3	1	Wisconsin	5	1
Los Angeles	2	1	State U. of			Yale	41	22
San Diego	2	1	New York	2	1			
Santa Cruz	3	1	Univ. of North					
Carleton	6	2	Carolina	3	2			
Carnegie Mellon	3	1	Northwestern	27	10			
Colorado			Oberlin	14	5			
College	5	1	Ohio Wesleyan	14	4			
University of			Penn State	1	1			
Colorado	12	2	Univ. of					
Columbia	20	7	Pennsylvania	18	6			
Connecticut			Pomona	7	3			
College	15	4	Princeton	36	20			
Cornell	20	7	Queens, Canada	1	1			
Dartmouth	23	14	Reed	2	1			
Denison	5	1	R.I. School of					
Dickinson	3	2	Design	2	2			
Duke	19	1	Ripon	1	1			
Franklin &			Univ. of					
Marshall	7	2	Rochester	6	2			
Georgetown	26	11	Rutgers	3	1			
George			Sarah Lawrence	3	1			
Washington	2	2	Scripps	2	1			
Univ. of			Smith	15	6			
Georgia	2	1	Univ. of					
Grinnell	4	1	Southern					
Hamilton	9	2	California	1	1			
Harvard	44	30	Stanford	20	12			
Haverford	2	1	Swarthmore	4	2			
Hobart	6	2	Trinity,					
Holy Cross	2	1	Connecticut	11	4			
Johns Hopkins	17	5	Trinity,					
Lafayette	8	2	Washington	1	1			
Lake Forest	4	2	Tufts	11	3			



ANDOVER

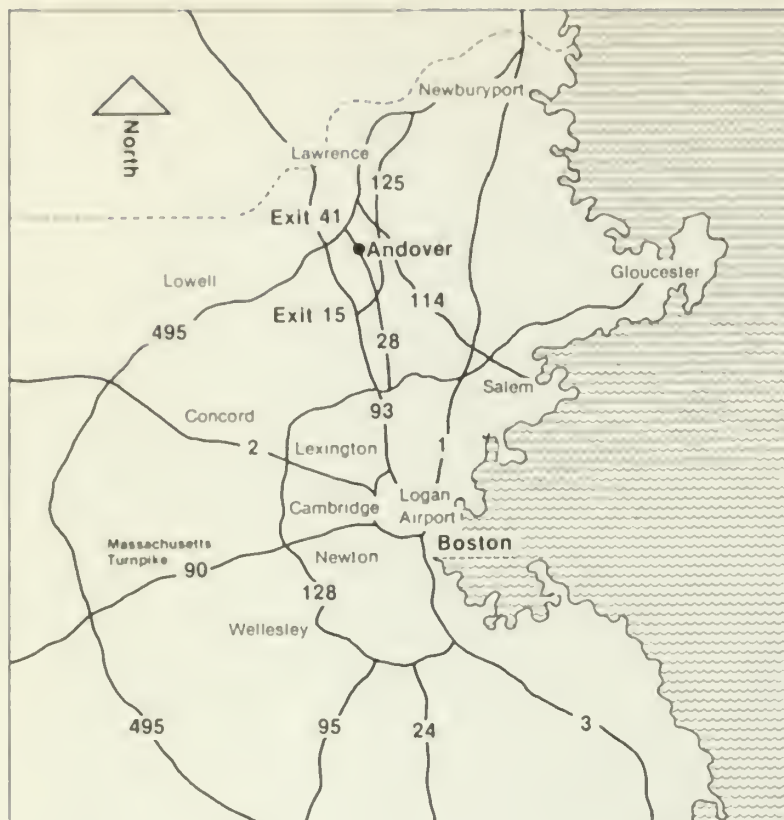


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- 1 Abbot Hall
- 2 Adams Hall\*
- 3 Addison Art Gallery
- 4 Alumni House\*
- 5 America House\*
- 6 Andover Cottage\*
- 7 Andover Inn
- 8 Arts Center
- 9 Bailey House\*
- 10 Bancroft Hall\*
- 11 Bartlet Hall\*
- 12 Benner House (Art)
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- 15 Borden and Memorial Gymnasium
- 16 Bulfinch Hall (English)
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- 39 G.E. Abbot Gymnasium
- 40 George Washington Hall
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- 43 Hardy House (Admissions Office)
- 44 Isham Infirmary\*
- 45 Johnson Hall\*
- 46 Junior House\*

- 47 Memorial Bell Tower
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- 53 Nineteen Twenty-four House
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- 60 Pemberton Cottage\*
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- 74 Sumner Smith Hockey Rink
- 75 Taylor Hall\*
- 76 Thompson House\*
- 77 Tucker House\*
- 78 Williams Hall\*

\*Dormitory



## TRAVELING TO ANDOVER

If traveling by car from Boston, take Route 93 north for about 19 miles. Take Exit 15, then turn right (east) on Route 125 for 2 miles. Turn right onto Route 28 and go north about 4 miles to the Andover campus. Turn right at the Bell Tower on the corner of Route 28 and Salem Street. The Admissions Office is the first building on the right.

If driving from Logan Airport, follow the signs to Boston via the Sumner Tunnel and follow Route 93 north signs.

From Route 495 north or south take the exit marked "Andover" and proceed south on Route 28 through the town of Andover. The Phillips Academy campus is approximately one mile south of the Andover center. Turn left on Salem Street, by the Bell Tower.

The Trombly Motor Coach Service runs buses to Andover from the Continental Trailways Bus Terminal, 10 Park Square, Boston. Buses run approximately every hour, 7:30 a.m.-11:00 p.m., Monday through Saturday, and from 10:30 a.m. to 11:00 p.m. on Sunday. Visitors should call the bus terminal in Boston, 482-6620, for up-to-date information.

### Inns and Motels in the Area

Andover Inn  
Chapel Avenue, Andover  
Telephone 617-475-5903

Sheraton Rolling Green Motor Inn  
Lowell Street, Andover  
Telephone 617-475-5400

Merrimack Valley Motor Inn  
Route 125 Chickering Road  
North Andover  
Telephone 617-688-1851

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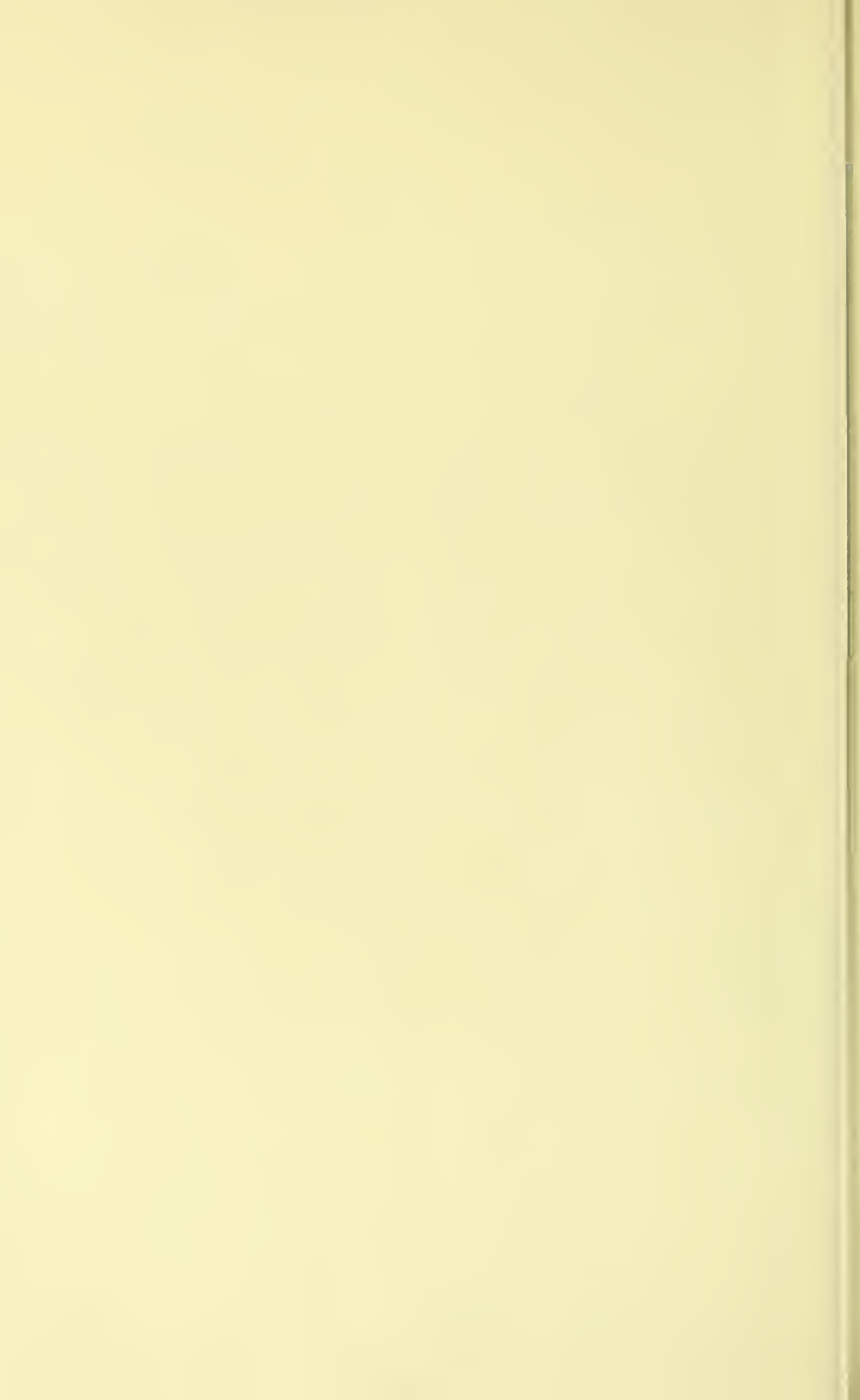
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Printed by Capital City Press  
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Robert E. Fletcher '79  
George MacNaughton  
Andrew D. Piper '72  
*The Pot Pourri*  
H. Christopher Smith '79  
John M. Snyder  
Katrina Thomas



1979  
ANDOVER  
COURSE OF STUDY  
1980

PHILLIPS ACADEMY



# Course of Study 1979-1980

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## Course of Study

The curriculum of Phillips Academy comprises a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Placement in the year-level of a subject may be independent of a student's grade in school: through advanced placement at entrance or accelerated courses, many students fulfill requirements ahead of the normal year, thereby gaining increased opportunity for college-level or other elective courses. Instruction is given in all subjects usually required for entrance to higher institutions.

Classroom groups are small enough to permit individual attention, and students are placed in sections fitted to their skill level. Accelerated sequences and advanced courses offer particularly able and well-prepared students opportunity to progress at a rate commensurate with their ability and ambition. Most departments offer courses beyond the level of preparation for college.

For full membership in a given class, students should have credit for the work of the lower classes or its equivalent. However, students are rated as members of a given class if their deficiencies for full membership in it do not exceed a certain number of trimester courses.

Every student is assigned to an Academic Advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements, and the student's particular interests. Students should familiarize themselves with the Academy's basic curriculum—both its requirements and its flexibility.

Members of the Upper Middle and Senior classes should become aware of the entrance requirements of the colleges they may wish to enter.

### The Trimester Plan

The academic year is separated into three trimesters. There are two types of weekly class schedules: one during which classes meet only Monday through Friday, and the other during which classes also meet on Saturday morning. There are roughly equal numbers of these five and six-day weeks in each trimester. Within a given week classes are scheduled to meet according to varying patterns: some for four fifty-minute periods; others for five such periods; and a few seminar and studio courses for two two-hour blocks. Many departments offer year-long courses as well as those which are term-contained (completed in one trimester). The diploma requirements are stated in terms of full-year courses or trimester courses, depending on the academic area involved.

### Special Courses in Foreign Languages

Special courses covering the work of two years in one are open to qualified Seniors in German, Greek, Italian, Latin, Russian, and Spanish. These 10-20 courses are designed primarily for students of proven linguistic ability wishing to begin a second or third language in their Senior year, and therefore are not recommended for students of



limited language ability. Entering Seniors with no previous foreign language experience must pass a 10-20 course as a diploma requirement.

### Accelerated Sequences and Advanced Placement

The Andover curriculum offers accelerated sequences in most departments. It provides special programs in Latin, Greek, and the modern foreign languages, designed to cover four years' work in three—or five years' work in four. The programs are open, on invitation of the departments, to especially able and ambitious students.

A large number of Phillips Academy students take College Board Advanced Placement Tests in May to establish advanced placement in college courses or credit toward the college degree.

Advanced Placement Examinations are offered in: American History, Art History, Biology, Chemistry, English, European History, French, German, Latin, Mathematics, Music, Physics, Spanish, and Studio Art (portfolio).

### Independent Projects

With the approval of the Dean of the Academy and in accordance with requirements established by the Faculty, a student may substitute independent work for some portion of the normal course load. An independent project may replace a given course for up to three trimesters of a student's stay at the Academy, or may replace all courses during a given trimester. In either case, the work is done under the supervision of a member of the Faculty.

### Off-Campus Programs and Projects

The school offers several off-campus residential programs. The *Washington Intern Program*, in which Andover joins with Exeter, allows a group of Upper Middlers and Seniors to spend the Spring Term living together in Washington and working in the offices of U.S. Senators and Congressmen. (See *History* 35.)

Students enrolled in Spanish at the third level or higher may elect a residential Winter Term of study in Mexico. (See *Spanish* 35.)

In addition to school-sponsored programs, the trimester plan provides an opportunity for individual Seniors to arrange off-campus projects related to their special interests. Some Seniors have worked as interns with officials in local government and members of the Massachusetts legislature. Others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative in the investigation of opportunities and careful planning of a course of study that will meet diploma requirements and also free a block of time during the appropriate term.

### School Year Abroad

Students may elect to spend their Upper Middle or Senior Year studying in France or Spain with *School Year Abroad*, originated as an off-campus program by Andover, later joined as a sponsor by

Exeter and St. Paul's. Students live with host families while pursuing a course of study under the supervision of teachers from the three original sponsoring schools. Although *School Year Abroad* is now an independent program, it provides students with courses that earn full academic credit at Andover and with the experience of immersion in a foreign culture. Students wishing to participate should consult their Academic Advisor and the *School Year Abroad* office (located in Samuel Phillips Hall on the Phillips Academy campus) for guidance in the selection of courses for the years prior to and following the year abroad.

### Summer Session

The *Andover Summer Session* is a six-week academic enrichment program for boys and girls of high school age. Students who wish to receive Phillips Academy credit for courses taken at the *Andover Summer Session* must receive prior approval from the chairman of the department involved.

### Short Term Institutes

The *Andover Short Term Institutes* provide an opportunity for students and teachers from secondary day schools to study one subject intensively during several weeks at Andover. Diploma candidates at Phillips Academy may apply for *Short Term Institutes*, provided that they are able to make individual arrangements for credit through the Dean of the Academy.

### Complementary Schools Project

The *Complementary Schools Project* sponsors a wide variety of off-campus community internships available to Phillips Academy students in good standing. Students who wish to participate in a community internship in another school should apply to the Director of the CSP, after having secured credit arrangements with the Dean of the Academy and approval from parents, Cluster Dean, and House Counselor.

## Planning a Program of Studies at Andover

The following is designed to help Andover students and their parents to understand the curriculum, and to show the major decisions, and their consequences, which face students at each stage of the four-year academic program.

## Workload

All new students are advised to carry only a normal program of five courses each term in the Junior, Lower Middle, and Upper Middle years. The requirement for the Senior year is four courses or the equivalent of the fourth course—that is, independent work equivalent to a course. Upper Middlers and Seniors may elect to adjust their workload by carrying four courses or five courses in any trimester during their last two years as long as the total for the two years comes to twenty-seven trimester units.

## Academic Advising

Each student has an Academic Advisor; this member of the Faculty is responsible for counseling the student in the planning of his or her course of study at Andover. The Advisor meets with the student during the Orientation period prior to the opening of school in September to review the course selections which the student has made during the previous Summer or Spring. The Advisor must approve the selections for the Fall Trimester at this time, and those for the Winter and Spring Trimesters, respectively, during conferences held later in the year.

Within the diploma requirements, programs of study are determined by the student's long-range needs and aspirations—insofar as these can be identified. These needs may include college and career plans, strengths and weaknesses as revealed by previous performance and aptitude tests, and character and personal development.

In addition to the Academic Advisor, the House Counselor or Day Student Counselor must also approve the student's course selection for each trimester. From time to time during the academic year, the Counselor will report to parents concerning the student's growth and progress. Late each spring students in the three lower classes and their respective Academic Advisors will prepare a selection of courses for the coming year; a copy of this selection will be mailed to parents in June.

Although the student is ultimately responsible for the selection of his courses, the Academic Advisor will welcome any information and suggestions that parents may wish to offer.

## Arena Day

Students register for their courses and sections in an arena setting before each term. Following meetings with their Academic Advisors, students make certain that the desired courses have sections scheduled that permit a conflict-free, workable daily program. Entrance into the arena is by classes and in numerical order according to a randomly chosen, pre-assigned number. Students are advised to have alternate selections in mind in the event that some of the desired sections are full; enrollment is on a first-come, first-served basis.

## Diploma Requirements

The basic diploma requirement is the satisfactory completion of a four-year secondary school program, of which at least three trimesters must be at Andover; the student must be in good standing (not on

Probation or under Suspension) at the time of graduation. A student who has been dismissed is ineligible for a diploma unless readmitted.

A student's program normally includes nine trimester units of a foreign language, eight of mathematics, a full-year course in United States History plus an additional trimester course in history taken at the Upper Middle or Senior level, a full-year course in a laboratory science, one trimester of art (usually *Visual Studies-Art 10*), one trimester of music (usually *The Nature of Music-Music 20*), and six trimesters of English, these to include a trimester course of competence in writing and reading and a five-trimester sequence of general literature. In order to be eligible for a diploma all students must satisfy the swim requirement of the Department of Athletics. Certain diploma requirements vary with the class level at which the student enters Phillips Academy. Entering Juniors and Lower Middlers must take a trimester course in physical education in addition to required athletics. Entering Upper Middlers need take only one trimester of either art or music at the Academy. Entering Seniors are not required to take either art or music. Some modifications of the language requirement are made for entering Upper Middlers and Seniors. Entering Seniors with no previous foreign language experience must pass a 10-20 course in a foreign language. A Senior must pass a minimum of twelve graded trimester courses during the Senior year. Seniors must have passing trimester grades for all courses taken during their Spring Trimester. Independent Projects are counted as graded courses.

Credits (trimester units) required for diploma are:

<i>For Entering Juniors</i>	54
<i>For Entering Lowers</i>	51
<i>For Entering Uppers</i>	48
<i>For Entering Seniors</i>	48

### Newly Admitted Students

Students entering for their first year are sent placement material, including some forms for present teachers to complete and a self-administered diagnostic test in elementary algebra. These items are used by the Academy to aid in proper placement or recommendation of course levels. New students are also asked to complete to the best of their ability a Course Selection form, indicating the courses that they wish to take during the coming year. Although the placement material may alter somewhat a student's preliminary selections, it is helpful, for planning purposes, to know the levels that each student thinks he is ready to enter.

### The Main Choices at Each Stage of a Four-Year Program

While a student's program of studies is adapted each year to his changing situation, *the future consequences* of each course should be noted, for certain choices in one year open the way to later options and may close the door to others.



## JUNIOR YEAR

Each trimester a Junior must take five courses, only one of which may be a Pass/Fail course. Students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring.

In selecting courses, students are reminded to check the diploma requirements. A Junior's program should resemble the following outline:

1. Math—begin sequence (usually *Mathematics 10*);
2. Foreign Language—begin sequence (usually a year-long course at the 10-level);
3. English—begin sequence (*Comp., Lit A (T2)* );
4. Elective [Art, Social Science, History, another Math, another
5. Elective [Language, Music, Performing Arts, Physical  
Education, RelPhil, Science, Interdisciplinary.]

## LOWER MIDDLE YEAR

Each trimester a Lower Middler must take five courses, only one of which may be a Pass/Fail course. New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. A few students take the CEEB Achievement Tests during their Lower Middle year. In selecting courses, students are reminded to check the diploma requirements. A Lower's program should resemble the following outline:

### *New Students*

1. Math—(usually *Mathematics 19* or *Mathematics 20*);
2. Foreign Language—enter the sequence by placement of the department;
3. English—begin sequence (*Comp., Lit A (T2)* );
4. Elective [Art, Classics, History, another Math, another
5. Elective [Language, Music, Performing Arts, Physical  
Education, RelPhil, Science, Interdisciplinary.]

### *Returning Students*

1. Math—continue the sequence (usually *Mathematics 20 (T2), 32*);
2. Foreign Language—continue the sequence;
3. English—begin sequence (*Comp., Lit A (T2)* );
4. Elective [Art, Classics, History, another Math, another
5. Elective [Language, Music, Performing Arts, RelPhil, Science,  
Interdisciplinary.]

### N.B.

Students planning to be off-campus for a term (e.g., *Term in Mexico, Washington Intern Program*, etc.) should make sure they have no year-long courses during that year. Students wishing to participate in the *School Year Abroad Program* during their Upper Middle year should discuss these plans with their Academic Advisor and seek guidance for the selection of courses for the Lower Middle Year.

## UPPER MIDDLE YEAR

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 units in blocks of four or five courses per trimester. A Pass/Fail course may be elected as a fifth course only.

New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. Many students take the CEEB Preliminary Scholastic Aptitude Tests in the Fall; all take the CEEB Scholastic Aptitude Tests in the Winter; and many take the CEEB Achievement Tests in the Spring of their Upper Middle year. Some also take the CEEB Advanced Placement Tests in the Spring of their Upper Middle Year. As a matter of general policy Academic Advisors encourage "depth" in the selection of courses for the Upper Middle Year. Most students satisfy their United States History requirement during their Upper Year. In selecting courses students are reminded to check the diploma requirements. An Upper's program should resemble the following outline:

#### *New Students*

1. Math—(usually *Mathematics 30, 31, or 32*);
  2. Foreign Language—enter the sequence by placement of the department;
  3. English—begin sequence (usually *Comp., Lit A (T2)* );
  4. Elective
  5. Elective
- |   |
|---|
| Archaeology, Art, Classics, another English,<br>Social Science, History, another Math, another<br>Language, Music, Performing Arts, RelPhil, Science,<br>Interdisciplinary. |
|---|

#### *Returning Students*

1. Math—continue the sequence (usually *Mathematics 35 (T2)* );
  2. Foreign Language—continue the sequence;
  3. English—continue the sequence (usually *Lit B (T2), Lit C*);
  4. History—usually *History 35-The United States*;
  5. Elective
- |   |
|---|
| Archaeology, Art, Classics, another English, Social<br>Science, History, another Math, another Language,<br>Music, Performing Arts, RelPhil, Science,<br>Interdisciplinary. |
|---|

#### **N.B.**

Students wishing to take an *Off-Campus Independent Project* for a trimester of their Senior Year must have no year-long courses during their Senior Year.

### **SENIOR YEAR**

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 trimester units in blocks of four or five courses per trimester. A Pass/Fail course may be elected only as a fifth course; however, an Independent Project, though marked on a Pass/Fail basis, is counted as a graded course.

A Senior must *pass* a minimum of twelve graded trimester courses during the Senior Year. Seniors must have passing trimester grades for all courses taken during their Spring Trimester. Many Seniors retake the CEEB Scholastic Aptitude Tests in December and the CEEB Achievement Tests in January, and the CEEB Advanced Placement Tests in May. In selecting courses students are reminded to check the diploma requirements. A Senior's program should resemble the following outline:

## New Students

1. Math—enter the sequence by placement of the department, if the requirement is not yet satisfied (usually *Mathematics 40*);
  2. Foreign Language—enter the sequence by placement of the department if the requirement is not yet satisfied;
  3. English—usually *English 300-123*;
  4. Elective
  5. Elective
- |   |  |   |
|---|--|---|
| [ | Archaeology, Art, Classics, another English, Social Science, History, another Math, a 10-20 Language, Music, Performing Arts, RelPhil, Science, Interdisciplinary. | ] |
|---|--|---|

## Returning Students

Usually most diploma requirements are satisfied. Careful selection of electives for continued depth in the student's chosen areas is encouraged.

## Transferring and Dropping Courses

To transfer or drop a course, a student must obtain an official transfer slip from his or her Academic Advisor. This slip is then taken *as soon as possible* to the Scheduling Officer in George Washington Hall.

Transfers into term-contained courses must take place during the first six calendar class days of the term. No course may be dropped during the last two weeks of class meetings of the course. Students wishing to drop year-long or T2 courses prior to the normal end of the course may do so only by gaining the approval of a group of five: the Department Chairman, the Dean of the Academy, the student's House Counselor, Academic Advisor, and Instructor. Credit is granted at the discretion of the Department Chairman and only if the student is passing the course at the time it is dropped and only for that portion completed. Year-long and T2 courses are considered as long-term commitments.

## Attendance

Students are expected to attend all academic classes.

Instructors, if approached in advance, are permitted (but not required) to excuse students from a class meeting if the absence from that meeting will not add to weekend time. Only Cluster Deans may give permission to extend weekend time, and they may do so without consulting Instructors.

## Failed Courses

In most cases, continuing students may attempt to receive credit for a failed course by taking a make-up examination. Spring Term Senior Failures may be made up only following Commencement.

### College Entrance Examination Board Test Dates

Test will be held on campus in 1979-80 as follows:

October 27	PSAT/NMSQT ( <i>Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test</i> )
November 3	SAT/ACH
December 1	SAT/ACH
January 26	SAT/ACH
May 3	SAT/ACH
May 12-16	AP ( <i>Advanced Placement Examinations</i> )

## Key to Course Designation

A course number ending in "0" denotes a year-long course (Example: *Math 10-0*). A number ending "123" indicates that the course is term-contained, but sequential, and may be taken for one, two, or three terms (Example: *Art 21-123*). A number ending in a single digit "1", "2", or "3" indicates a course that is term-contained, but one that may be taken only once (Example: *History 422-2*). The designations 1, 2, and 3 indicate the trimesters during which the course is offered: 1 = Fall; 2 = Winter; 3 = Spring. Some courses require a two-term commitment; they are indicated by a "(T2)" following the course name (Example: *Physics 52-12 Advanced Physics (T2)*). Check carefully each course description for any other limitations: Prerequisites, permission of instructor or department chairman required, etc.

Immediately below each course number is a 4-digit number in parentheses. This identification number (often referred to as the "computer number") is used for data processing files and is required when a student registers for courses. The final digit of the computer number has roughly the same meaning as the last digit of the course number:

<i>Final Digit:</i>	<i>Indicates:</i>
0	Year-long course
1	Course offered in Fall Trimester
2	Course offered in Winter Trimester
3	Course offered in Spring Trimester
4	T2 course offered in Fall and Winter
5	T2 course offered in Winter and Spring



# Course Descriptions

## Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers a term-contained course as an elective.

- 25-1 Archaeology  
2251) Four prepared classes. Open to Upper Middlers and Seniors. Limit 15 students. The course explores the methods archaeologists use to reconstruct prehistoric societies and to test general statements concerning how and why these societies came to be the way they were. In doing this, several major transformations in human society are considered, beginning with the society of the earliest men, and ending with the first civilizations. Lecture and class discussions are supplemented by visual aids and work with archaeological specimens. A brief excavation may be conducted locally.

The diploma requirement in Art is as follows: entering Juniors and Lowers must take a trimester course in a Studio Art; an entering Upper must take a trimester course in a Studio Art or Music at the Academy; neither a Pass/Fail course nor an Art History Course is accepted as fulfilling the requirement. The basic course, *Visual Studies*, covers a broad range of material, is open to students of all abilities and experience, and is a prerequisite to almost all elective courses in Art. Exemption from this prerequisite is granted only on the basis of a portfolio of work judged satisfactory by the Chairman of the Department in collaboration with the teacher of the course which the student desires to enter. An acceptable portfolio should contain examples of two-dimensional work, three-dimensional work (slides or photographs are acceptable), and photography.

The College Entrance Examination Board offers students the opportunity to gain Advanced Placement in Studio Art in many colleges and Art Schools, thus enabling a student to by-pass basic design courses. Students must submit a portfolio of slides and original work to Princeton in May. Students interested in Advanced Placement should enroll in *Art 315-1* and two subsequent terms in Art.

Students wishing to apply for an independent project in photography will not be eligible until they have taken *Art 12*, *Art 26*, and two terms of *Art 306*.

Students should expect to help pay for art materials.

## Introductory Studio Courses

### 10—1 Visual Studies

- (0101) Five prepared class periods. In its emphasis on observation, interpretation, and organization, the basic course is designed to supply an understanding of contemporary surroundings. Along with discussion of design problems, the student receives experience in photography, drawing, two-dimensional design, and three-dimensional construction. Previous experience in art is not required.

### 11—12 Visual Studies for Juniors (T2) (a two-term commitment)

- (0114) Four prepared periods. A two-term course which will cover drawing, color, photography, and an intensive exposure to the Addison Gallery of American Art. The course will fulfill the diploma requirement in art and will serve as the equivalent of *Art 10* as a prerequisite for other Art courses.

### 12—1 Introductory Photography

- (0121) Prerequisite: *Visual Studies*. An introduction to basic out-of-doors photography, the course covers fundamentals of exposure, developing and print-making. A camera (35 mm. or 2¼) with manually controlled speed, aperture and focus is required; a light meter is not necessary. Emphasis is on both dark-room technique and aesthetic quality. This course may be bypassed by students with previous experience through the presentation of a portfolio.

### 13—2 Art Studio

- (0132) Pass/Fail. A Studio open to all classes which strives for flexibility to suit the varied art interests of the students. There is either an introduction for some people to drawing, painting, and printing, or an opportunity for those more experienced to develop the abilities and ideas they already have achieved. There is a balance between structured classes and free creative periods. *Visual Studies (Art 10)* is preferred but not required as a prerequisite. Limit of 12. (Mrs. Powell)

### 14—1 Introductory Ceramics

- (0141) Pass/Fail. Four classes per week plus an evening studio. Limit of ten students.
- 14—2 Basic techniques of hand-building, wheel-throwing, and glazing. Emphasis on the sculptural as well as the functional possibilities of clay. At least one raku firing each term, or a similar special project. (Mrs. Bensley)
- (0143)

## Intermediate Studio Courses

Unless otherwise noted, the intermediate courses consist of four prepared classes each week. *Visual Studies (Art 10)* is a prerequisite for all intermediate courses.

### 20—123 Drawing

- (0201) Prerequisite: *Visual Studies (Art 10)*. A course designed to develop observation and drawing skills in several media, based on the assumption that drawing is an end in itself as well as a skill basic to other media. Included: one life-drawing session each week.

## -123 Animation

- 211) Prerequisite: *Visual Studies (Art 10)*. An introduction to the art of illusion of motion through shooting still images frame by frame with 16mm sound motion picture film, with emphasis on the relationship to the sound track in structuring the finished product. Given in collaboration with the Music Department, the course may interest either the art student who wishes to explore the visual possibilities of the medium or the music student who wishes to find a vehicle for an original composition. (Mr. McMurray and Mr. Irwin)

## -123 Two-Dimensional Design

- 231) Prerequisite: *Visual Studies (Art 10)*. The course deals with one's ability to manipulate those elements most associated with the picture plane: color, line, shape, texture, and composition of flat materials. Work includes: 1) color—free studies and collages dealing with the structural and expressive nature of color; 2) drawing—exercises using pencil, pen, and brush, figure and landscape drawing; and 3) figure-ground—expanding the structural and illusionary aspects of figure-ground as an end in itself and as a basis for graphic and advertising design. (Mr. Shertzer)

## 1-1 Three-Dimensional Design

- 241) Prerequisite: *Visual Studies (Art 10)*. Woodworking, welding, furniture design, toy-making, sculpture—all these activities share principles of design which can be more broadly applied to architecture, city and regional planning. The course introduces the wood and metal shops via a series of assigned projects, each of which demonstrates a basic set of design principles. Please see description of Art 27-0, below. (Mr. Lloyd)

## -123 Intermediate Ceramics

- 251) Prerequisite: *Visual Studies (Art 10)*. (*Introductory Ceramics (Art 11)* preferred but not required.) The course stresses combining techniques and the development of basic skills toward new forms. Participation in glaze preparation and firings. (Mrs. Bensley)

## -123 Intermediate Photography

- 261) Prerequisite: *Art 12*. An extension of *Introductory Photography*, the course goes deeper into technical proficiency and aesthetic quality. Technical aspects include metering techniques, black and white filters, exposure and printing contrast controls, various developing styles and darkroom deviations. A camera and light meter are required. The student will be exposed to the works of various photographers so that he may gain a better sense of his own photographic style and identity.

## 7-0 Three Dimensional Design (Special)

- 270) Prerequisite: *Visual Studies (Art 10)*. The Fall term of this course will be identical to Art 24, described above. Subsequent terms will involve designing furniture for the new Student Center in the renovated Commons, and its construction. In the process, wood- and metal-working techniques will be explored. Offering of this course is dependent on approval by Trustees of the Commons project in May, 1979. If this course is given, Art 24 will be offered in the Spring only. (Mr. Lloyd)

## History of Art Courses

### 40—2 History of Art: Painting and Sculpture

(0402) Four prepared class periods. For Uppers and Seniors. Although a survey of Western Art from the cave painter to contemporary, the course examines four present-day directions by studying the historical styles as roots leading up to our time, with an emphasis on the 20th Century. Students will be expected to produce a slidetape on an artist or style of their choice. (Mr. Bensley)

### 41—3 History of Art: Architecture

(0413) Four prepared class periods. For Uppers and Seniors. A survey of architecture and engineering from priestly civilizations to the present, the course emphasizes the architectural style as an expressive outgrowth of the culture that produced it. Students will be expected to produce a slidetape on an architect or style of their choice. Combined with Art 40-2, this course should prepare students for the Advanced Placement Examination in Art History. (Mr. Bensley)

## Advanced Studio Courses

*Visual Studies (Art 10)* is a prerequisite for all advanced courses.

### 300—123 Graphics and Photography

(0701) Prerequisites: *Visual Studies (Art 10)* and *Introductory Photography (Art 12)*  
 (0702) Applying photography to graphic arts, particularly through photo-silkscreen.  
 (0703) Individual experimentation is emphasized in an attempt to carry the expressive force of photography beyond darkroom techniques. (Mr. McMurray)

### 302—123 Painting

(0721) Prerequisite: *Visual Studies (Art 10)*. An introduction to the basic elements  
 (0722) and techniques of painting in oils and acrylics. Specific problems are assigned  
 (0723) to study the fundamentals of color, form, composition and space in painting, as well as to encourage the student's individual expression. Class critiques and discussions, slides, reproductions, films and occasional field trips are also part of the course. Previous experience is helpful but not necessary; students are encouraged to sign up for the full year if possible. (Mrs. Rabinowitz)

### 303—23 Filmmaking (Not offered in 1979-80)

Prerequisite: *Visual Studies (Art 10)*. This course combines viewing theatrical, documentary, and art films for discussion and criticism with the production of individual or group student films in silent super-8. Course work will include developing film ideas, script-writing, shooting, cutting, editing, and class critiques. Editing and projection equipment will be provided. A small number of cameras is available for day-loan but students are encouraged to acquire their own cameras for greater control and freedom.

### 304—123 Advanced Ceramics

(0741) Prerequisite: *Visual Studies (Art 10)*. For those who are seriously interested in  
 (0742) the total operation from design to execution. Hand-building, wheel-throwing,  
 (0743) glazemaking (and some chemical analysis), responsibility for loading and firing electric, gas, raku, and salt kilns. Assigned reading and occasional field trips. (Mrs. Bensley)



- 123 **Print Shop**  
 0751 Prerequisite: *Visual Studies (Art 10)*. Relief Painting: designing, cutting, and  
 0752 printing linoleum and woodblocks in editions. Silkscreen: making stencils for  
 0753 the screen, experimenting with color, and printing imaginative compositions as  
 well as message-oriented posters. Intaglio: starting with drypoint and learning  
 the processes of etching and printing in a workshop atmosphere. (Mrs. Powel)
- 306 **Advanced Photography** (a two-term commitment)  
 Prerequisites: *Introductory Photography (Art 12)* and *Intermediate Photog-*  
*raphy (Art 26)*. *This course may not be started in the Spring Trimester.* The  
 course consists of any two or three terms, to be taken within a single academic  
 year and to be selected from the four options listed below, with the normal  
 expectation that a student will not take a single option for more than one  
 trimester:
- 761) 306-I-1. Photojournalism. A photograph is a multi-dimensional experience.  
 763) 306-I-3. It can serve to recall persons or events; it can inform, inspire, and  
 raise questions. It is a way of sharing an experience and one's relationship to  
 it. The subject of this course is taking photographs that are deeply and  
 personally felt and which, at the same time, can communicate to a wide  
 audience. The commentary and images of several celebrated photographers  
 will be presented for discussion. Projects will include individual photographs,  
 essays, picture stories, journals, biographies, etc. While independent work is  
 expected, some assignments will be given. (Mr. Wicks)
- 772) 306-II-2. Large Format Photography. The special qualities of the large  
 773) 306-II-3. camera open up a new world of image making which alters the  
 relationship of photographer to subject and creates options different from the  
 smaller formats. View camera swings and tilts, perspective and depth of field  
 control, sheet film processing, advanced metering and exposure methods, and  
 techniques of the fine photographic print are covered. A survey of the aes-  
 thetic and stylistic development of photography in the nineteenth and  
 twentieth centuries is taught. Students explore the many possible approaches  
 to their own photography in this historical context. Extensive use is made of  
 the Addison Gallery's collection of original photographs. 4 x 5 cameras are  
 provided. (Mr. Sheldon)
- (782) 306-III-2. Studio Photography. Concentrating on portraiture and fashion  
 photography, studio strobes are used to achieve controlled lighting. 2¼ for-  
 mat cameras are provided. Utilizing professional models from Boston agencies,  
 the course is an introduction to commercial photography. (Mr. Bensley)
- (792) 306-IV-2. Photoillustration. Illustration in photography involves applying  
 (793) 306-IV-3. the imagination, using manipulation of exposure and printing  
 techniques to produce images which are preconceived, not necessarily  
 observed. The course includes group critiques, assigned readings, exposure to  
 professional work, and occasional field trips. (Ms. McCarthy)
- 3, 123 **Sculpture**  
 (381) Prerequisite: *Visual Studies (Art 10)*. Offers an opportunity to work in practi-  
 (382) cally every material available to the sculptor today, including wood, stone,  
 (383) metal, plastics, plaster, and others. It is therefore possible for students to  
 develop into sculpture concepts discovered in *Visual Studies (Art 10)* or *Three-*  
*Dimensional Design (Art 24)* as well as ideas drawn from their own experi-  
 ence. Some outstanding work of recent classes include the "avocado" by  
 Seymour House '73, a thirty-foot welded construction which is now a perma-

ment addition to the Addison Gallery, a standing steel figure by Jamie Morgan '73, which was on display in the Headmaster's Office, and others. Individual criticism is stressed. (Mr. Shertzer)

**309—123 Kinetics**

- (0891) Prerequisite: *Visual Studies (Art 10)*. *Three-Dimensional Design (Art 24)* is recommended. A search for the aesthetics of movement. Individual inventiveness  
(0892) is stressed as students pursue projects directed toward devices that produce  
(0893) implied or real motion. Self-perpetuated problem-solving situations become one of the prime values and objectives of the course. (Mr. McMurray)

**310—123 Architecture**

- (0901) Prerequisite: *Visual Studies (Art 10)*. For Uppers and Seniors. A design course  
(0902) based on previous work in *Visual Studies (Art 10)* and/or *Three-Dimensional*  
(0903) *Design (Art 24)* which relates the basic elements of surface and volume to the design of shelter, the efficient combination of human functions, and the organization of construction. At least one term involves large-scale projects constructed in the woodworking shop. Examples from recent years include the Search and Rescue climbing tower near Rabbit Pond and the playground at a local elementary school. (Mr. Lloyd)

**311—3 Contemporary Communications**

- (0913) Four prepared class periods. The course examines some of the bases of communication between and among people. Material includes fiction, non-fiction, poetry, drama, motion pictures, and the visual arts. Prerequisites: Successful completion of a course in art, music, or theatre. The course engages in group projects aimed at public presentation. (Mr. Owen and Mr. Lloyd)

**314—3 Calligraphy: The Art of Lettering by Hand**

- (0943) Prerequisite: *Visual Studies (Art 10)*. A course designed to develop basic techniques of fine hand lettering beginning with Roman capitals and tracing the historical developments of letter construction, integrating form and function. Practical applications can range from simple matter quotations to illuminated manuscript work. (Mrs. Quattlebaum)

**315—1 Advanced Placement in Studio Art**

- (0951) Prerequisite: *Visual Studies (Art 10)*. For Seniors, or for Uppers by permission of the Instructor. Four prepared class periods, Fall term only, to help students with special interest in art or design prepare a portfolio for Advanced Placement. The course will concentrate on preparing work for the "breadth" category of the AP, but will also entail planning courses or projects to fulfill the sections entitled "quality" and "depth." A student enrolled in this course should plan to take at least one art course or project in Winter and Spring terms. (Mr. Lloyd)

## The Classics

The foreign language diploma requirement is competence at the third-year level of a modern or ancient language. Such competence in Latin or Greek is usually established by completing the ninth trimester. Able students may fulfill the requirement at the end of the eighth, or even the seventh trimester, by passing a special examination set by the department.

Through the study of Greek and Latin the Department of Classics offers students a direct entry into Greek literature, which is still unsurpassed in excellence, and into Latin, which, as the universal language of church, court, and scholars throughout the formative years of modern Europe, can rightly be termed the mother tongue of Western Civilization, and the surest index to its meaning.

Students have traditionally studied Latin before going on to the study of Greek. However, Greek is equally appropriate as a first language since it is not more difficult than Latin. The Greek alphabet is easily mastered in the first two class meetings, and students quickly discover that the Greek language has poetic and expressive qualities which stimulate the imagination and illuminate man's political and intellectual development.

In addition to language courses, there are survey courses which require no knowledge of Greek and Latin. Through them the department makes available to all Andover students a broad introduction to Classical civilization: history, literature, mythology, epic, and etymology.

## Greek Courses

### —0 Greek, First Level

- (010) Five prepared class periods. The course introduces the student directly to the Classical Greek of Periclean Athens through a series of readings which present not only the vocabulary, forms and syntax of the language but also the thoughts, feelings and actions that exemplify the Greek genius. Though the first few selections are necessarily adapted to simple form, within the first term students are reading authentic Plato and Aristophanes, within the year Euripides and Homer, and quickly enough at that to encompass a complete episode in a day's work. The text is *Reading Greek* (Cambridge), by the Joint Association of Classical Teachers.

### —0 Greek, First and Second Level, Accelerated

- (020) Five prepared class periods. The course is open to Seniors and Uppers. It covers in one year the essential material of *Greek 10* and *Greek 20*: basic forms and structure, along with ample selected readings from Xenophon and Plato, as an introduction to Greek literature. The text is Chase and Phillips' *A New Introduction to Greek* (Harvard University Press).

### —1 Introduction to Greek

- (031) Four prepared class periods. The course is for students whose curiosity for the Greek language and literature has been aroused by their studies in other areas.  
 —3  
 (033) For students who plan some day to study Russian or German, this course provides an excellent introduction into the intricacies of a highly inflected language. The student is also treated to an inside preview of a literature which, over the centuries, has provided inspiration and models for the literature of the Western World. It is a term-contained course, but students wishing to continue with Greek will have the opportunity to do so.

### —0 Greek, Second Level

- (040) Five prepared class periods. The course continues the format of *Greek 10*, with further systematic development of reading skills and control of vocabulary,

forms and syntax through the medium of more advanced selections from the Greek masterpieces, always with the purpose of understanding the spirit of the people that produced them. The text is the second in the *Reading Greek* series by the Joint Association of Classical Teachers.

**30—0 Greek: Iliad and Odyssey**

(5050) Four prepared class periods. Selected books of the *Iliad* and the *Odyssey*, and sometimes a play of Euripides. Students examine the nature of tragedy, heroism, and self discovery. The texts are Benner's *Selections from Homer's Iliad* (Naburg), and Homer's *Odyssey I-XII* ed. Stanford (St. Martin's Press).

**40—123 Greek: Historians, Tragedians, Lyric Poets**

(5061) Four prepared class periods. In the Fall Term ancient concepts of justice and morality are examined through the works of Herodotus and Thucydides.  
(5062) Human tragedy is explored in a play of Sophocles or Euripides in the Winter Term. The Spring Term is devoted to the study of emotion and self-expression in the Greek lyric poets. The texts are Chase and Phillips' *A New Greek Reader* (Harvard University Press), Euripides' *Medea*, ed. Elliott (Oxford), Sophocles' *Oedipus Tyrannus*, ed. Jebb (Cambridge), and Campbell's *Greek Lyric Poetry* (St. Martin's Press).

**Latin Courses**

**10—0 Latin, First Level**

(5110) Five prepared class periods. The purpose of the course is to prepare students for general reading in Latin. To that end, thorough training is given in the basic vocabulary, forms and syntax of the language (including all participles, infinitives and subjunctives) along with practice in sight reading. The student is also introduced to Roman history and to the relationship of Latin to the English language.

**10-20—0 Latin, First and Second Level, Accelerated**

(5120) Five prepared class periods. For Upper Middlers and Seniors. A year-long accelerated introductory course covering two years in one. Texts are the same as those for *Latin 10* and *Latin 20*.

**13—1 Introduction to Latin**

(5141) Four prepared class periods. The course is for students seeking an introduction to the Latin language, or those whose studies in other languages (including English) have aroused their curiosity about the workings of languages (grammar, syntax and vocabulary). It offers special profit and fascination to students of French, Spanish, and Italian, since it illuminates much of what they already know by acquainting them with the mother language. For students who plan some day to study Russian or German it serves as an introduction to the workings of highly inflected languages. It is a term-contained course, but students wishing to continue with Latin will have the opportunity to do so.

**20—0 Selected Latin Prose Authors**

(5150) Five prepared class periods. During the first term, the course gives a thorough review of the fundamentals of Latin grammar and begins the reading of Caesar. Caesar's account of his campaigns provides for the student insight into the problems of political ambition and international intrigue. These ideas are developed and reexamined in additional readings from Nepos and Livy. There is practice in sight translation and prose composition. The texts are Buehner's *An Intermediate Latin Reader* (Independent School Press) and Colby's *Review Latin Grammar* (Independent School Press).



- 21—0 Selected Latin Prose Authors  
5160) Five prepared class periods. For new students whose first-year Latin course may have been less complete than *Latin 10*. The course follows the same outline as *Latin 20*, but more slowly.
- 30—0 Cicero, Sallust; Vergil's *Aeneid*, Book II  
5170) Four prepared class periods. Through the writings of Cicero and a variety of other authors, students learn to read Latin prose with increasing ease. The course presents a picture of Cicero's life and times and compares the political unrest and maneuvering of his time with that of our own. The literary importance of Cicero as the creator of a prose style which had a dominant influence on the literature of Europe for centuries is assessed. In the Spring Term the student is introduced to Roman poetry through readings in Vergil's *Aeneid*. The student will begin to understand how Vergil, as heir to the Homeric tradition, gave to epic and to Western poetry in the generations that followed him their definitive form. The text is Gillingham and Barrett's *Latin: Our Living Heritage*, Book III (Charles E. Merrill Books).
- 1—0 Cicero; Vergil's *Aeneid*, Book II  
5180) Five prepared class periods. The course follows the same outline as *Latin 30*, but begins with a more extensive review of the work covered in the second year. It is intended for new students who have had two years of Latin but little or no experience in reading Caesar.
- 123 Vergil's *Aeneid*  
5191) Four prepared class periods. Through a thoughtful reading of Vergil's *Aeneid*,  
5192) students are introduced to the great classical traditions of epic poetry. The literary form and beautiful, symbolic content of the *Aeneid* become familiar as  
5193) the model and inspiration of our western poetical heritage. Homer, as Vergil's well-loved and frequently emulated model, is read in translation; the comparison and contrast of the Homeric tradition with Vergil provide a clear understanding of the Latin author's techniques and purpose.
- 123 Livy and Tacitus; Roman Comedy; Horace and Catullus  
5201) Four prepared class periods, one unprepared period devoted to sight work.  
5202) The course includes preparation for the Latin Advanced Placement Examination.  
5203) In the Fall Term, selections from Livy's *Histories* give students insight into the foundations of some of the Western World's ideas of government and law. Selections from Tacitus' *Annals* are read as a contrast because of their studied depiction of human excess in tyranny and degradation. In the Winter Term, Roman comedy treats students to the bases of European high comedy and farce. In the Spring Term, the students begin to understand the Roman concepts of moderation versus excess through the writings of the poet Horace, described by a Twentieth Century psychiatrist as "a type of the perfectly integrated personality." The lyric poetry of Catullus reveals the perennial personal emotions found as well in the First Century BC as now.

## Classics Courses

- 1—1 Classical Civilization: Greece  
5321) Four prepared class periods. For Juniors and Lower Middlers. The course surveys the achievements of the ancient Greeks from Homeric times through Alexander the Great, including their impact on later civilizations in such areas as literature, art, philosophy, drama, government, and science—in short, the Greek sources of our cultural "roots".

**22—2 Classical Civilization: Rome**

(5332) Four prepared class periods. For Juniors and Lower Middlers. The course introduces students to the civilization of Rome which dominated the Western World politically for a thousand years and culturally for even longer. The developing concepts of politics, law, and empire as we know them today are discussed. The course challenges the student to consider the meaning of the Roman experience in its glorious achievement of the "Roman Peace" as well as in its "Decline and Fall".

*For other courses related to the Classics, please see History 410 (Ancient History) and, in the Interdisciplinary section, Epic Poetry, Etymology, Greek Literature in Translation, and Roman Literature in Translation.*

## English

The diploma requirements in English are to establish competence in writing and reading (normally by successful completion of the *Competence Course*), and to complete the *Literature Sequence* through *Literature C*. For those entering Seniors and Post-Graduates who must take *English 300*, the requirement is reduced by the appropriate number of trimesters. (Seniors and Post-Graduates are interviewed by the Department Chairman before the start of school and in some cases these students may be exempted from *English 300* to enroll in one of the 400 or 500 level English courses.) All new underclassmen enroll in *Competence*.

The English Department also offers courses at the following levels: *Language Skills* and *Efficient Reading* for students lacking certain English skills; specialized courses for students who have already passed their competence and literature requirements and elect to continue studying English. Related courses, whose prerequisites vary, are listed elsewhere in this booklet: e.g., under Performing Arts, Interdisciplinary Courses, Classics Courses, and Modern Foreign Language Courses in translation. All English courses meet for four prepared classes a week, unless the course description states otherwise.

**16—23 Language Skills (T2) (a two-term commitment) (Not offered 1979-80.)**

This course is designed for those students, primarily Juniors, who need supplementary help in overcoming weaknesses in reading, writing, spelling, and vocabulary. By studying the structure of words and sentences, and by practicing patterns of pronunciation, students can learn to understand language better and use it more effectively. Specific assignments are geared to

the needs of each student. Open only to students who have permission of the Chairman of the English Department.

*Juniors are also eligible to enroll in Etymology, which is described under Interdisciplinary.*

18—1 **Efficient Reading** (Not offered 1979–80.)

Primarily for Upper Middlers and Seniors. A course for increasing reading speed and comprehension, using the *Harvard Reading Course* with supporting exercises in writing and vocabulary.

**Normal Required Sequence (2 years)**

	<i>Fall</i>	<i>Winter</i>	<i>Spring</i>
<i>First year of sequence</i>	Competence	Lit A (T2)	
<i>Second year</i>		Lit B (T2)	Lit C

1201) **Competence Course**

The course is designed to teach the basic skills in reading and writing. It enables a student to achieve the competence requisite for the literature and the specialized courses. The course is concerned with the recognition and use of the basic elements of a sentence, sentence patterns, punctuation, paragraph development and coherence, and the composition of unified exposition. It encourages the acquisition of important reading skills in conjunction with the study of writing. Passages that have been composed by skillful writers are evaluated for their particular strengths: organization, logic, point of view, tone, diction, transitional devices. Through the use of the summary sentence, the outline, and the summary paragraph, a student learns to reduce a passage to core ideas.

**Literature Sequence**

The texts listed comprise about half the reading in each course, the remaining texts to be chosen by the individual instructor of each section.

1215) **Lit A (T2)** (a two-term commitment)

This course builds on the writing skills of *Competence* by applying them to tasks of more specificity, complexity, and scope. During the first term, emphasis is placed on writing for a specific analytic purpose and on documentation. The essay, as example of specific kinds of expository writing, is studied. The second term focuses on close and accurate reading of the short story and poem and emphasizes the skills necessary to write about these works clearly and concisely.

Texts: *Prose Models*, ed. Levin

*50 Great Short Stories*, ed. Crane

*Short Story Masterpieces*, ed. Warren and Erskine

*Sound and Sense*, ed. Perrine

**Lit B (T2)**

A choice among three courses in English and American literature 1660–1900. Each course is a two-term unit.

- (1224) Lit B-I (T2) (a two-term commitment)  
 The prose and poetry of the late Seventeenth and Eighteenth Centuries, with emphasis on satire.  
 Core Texts: FALL TERM  
                 Swift, *Gulliver's Travels*  
                 Pope, selected poems  
                 WINTER TERM  
                 Fielding, *Joseph Andrews*  
                 Blake, selected poems; or selections from *Eighteenth Century Minor Poets*
- (1234) Lit B-II (T2) (a two-term commitment)  
 Romantic literature in England and the United States.  
 Core Texts: FALL TERM  
                 Keats  
                 Bronte, *Wuthering Heights*; or Shelley, *Frankenstein*  
                 WINTER TERM  
                 Whitman  
                 Melville, *Moby Dick*; or Hawthorne's short stories
- (1244) Lit B-III (T2) (a two-term commitment)  
 English and American literature of the later Nineteenth Century  
 Core Texts: FALL TERM  
                 Hardy, *Mayor of Casterbridge*; or Dickens, *Hard Times*  
                 Browning  
                 WINTER TERM  
                 Twain, *Huckleberry Finn* or *Pudd'nhead Wilson*  
                 Dickinson, *Final Harvest*
- (1263) Lit C  
 An introduction to the study of Shakespeare. At least two plays will be read, one a tragedy, with an emphasis upon close textual analysis.

### Specialized Courses

Specialized Courses are open to students who have successfully completed *Literature A, B, and C*. Courses numbered in the 500s are more intensive and demanding than those numbered in the 300s and 400s. Each course has four prepared class periods a week, unless specifically stated otherwise. Only courses with sufficient enrollment will be given.

### 300—123 English

- (1301) A special course for all post-graduates and one-year seniors. Its purpose is to assure that those who take it will acquire the writing and reading skills taught in the Competence-Literature A sequence, as well as to provide exposure to substantial works of literature. Intensive writing drill in the Fall is complemented by study of the short story; in the Winter and Spring terms students read plays and poetry while learning to write effective papers of greater length. (Mr. Bernieri, Mr. Kalkstein, Dr. Germain)
- (1302)
- (1303)



- 01—1 **Non-Fiction Writing**  
 1711) In this course writers will gain practice in these non-fiction modes: personal  
 01—2 essay, analysis, argument, feature writing, and extended composition. There  
 1712) are daily writing assignments; class work focuses on student editing. In addition, students will read several works by major non-fiction writers. The instructors assume that students entering the course write with grammatical and rhetorical competence. (Mr. Pepper, Mr. Kalkstein)
- 123 **Introduction to Writing**  
 1731) An introductory course to the writing of original stories, informal essays, and  
 1732) poetry. After examining examples of the genres mentioned, the student tries  
 1733) his hand at one or more of these forms. With written permission from the instructor, a student may take this course before he has completed the normal Competence-Literature sequence. (Mr. Smith)
- 14—1 **Hemingway and Fitzgerald**  
 1741) A consideration of two modern literary contemporaries who captured their  
 14—3 eras with equal success, but whose prose styles and temperaments made them  
 1743) unlikely compatriots. Short stories and novels by both authors will be read. (Mr. Sykes, Mr. Bernieri)
- 23 **Black Literature (Not offered 1979-80.)**  
 The theme and content of this course will vary each term. The first term's theme is "Toward the Promised Land": a consideration of several African-American authors' depiction of their people's migration from the South to the North and the frustrations of the "dream deferred." Works by Ellison, Baldwin, Wright, Hughes, McKay, and Toomer are read.
- 123 **Man and God**  
 1771) The course considers man's search for meaning in what frequently seems to be  
 1772) an inexplicable world. Readings include *The Oedipus Cycle*, Sophocles; *King Lear*, Shakespeare; *Rosencrantz and Guildenstern Are Dead*, Stoppard; *Long Day's Journey Into Night*, O'Neill; *J.B.*, MacLeish; *A Portrait of the Artist as a Young Man*, Joyce; *The Fixer*, Malamud; *The Idiot*, Dostoevski; *The Trial*, Kafka; *Tiny Alice*, Albee; *The Birthday Party*, Pinter; *The Sound and the Fury*, Faulkner; *Short Stories*, Salinger; *Rabbit Run*, Updike; *Wiseblood*, O'Connor. (Ms. St. Pierre)
- 123 **American Writers of the Twentieth Century**  
 1781) A thematic and comparative study of the novel and drama in America from  
 1782) 1900 to the present. Representative authors are Wolfe, O'Neill, Fitzgerald, Dos  
 1783) Passos, Hemingway, Williams, Faulkner, West, Styron, and Agee. (Mrs. Harper, Mr. Cobb)
- 5)—23 **James Joyce**  
 1802) The first term is devoted to *Dubliners*, *A Portrait of the Artist*, and *Stephen Hero*, and Ellmann's *James Joyce*; the second to *Ulysses* and *Finnegan's Wake*  
 1803) in part. The purpose of the course is to follow the development of Joyce's method and style and to develop the skill to read important and difficult works without the aid of study guides and other secondary material beyond the Ellmann. Although the course may be taken in either term, the student gains a better sense of Joyce's genius by enrolling for two terms. (Dr. Germain)

- 502—1     **Irish Studies**  
 (1821)     The course will concentrate upon the history and folklore of Ireland in order  
 502—3     to broaden understanding of the four major writers of the Irish Renaissance:  
 (1823)     Yeats, Synge, O'Casey, and Joyce. (Ms. Bussiere)
- 508—23   **Directions in 20th Century Drama**  
 (1882)     The close study of significant contemporary drama, specifically Ibsen's *Ghosts*.  
 (1883)     O'Neill's *The Iceman Cometh*, Williams' *Streetcar Named Desire*, Bolt's *A Man  
 for All Seasons*, Osborne's *Look Back in Anger*, Beckett's *Waiting for Godot*,  
 Pinter's *The Homecoming*, Ionesco's *The Lesson*, Albee's *Who's Afraid of  
 Virginia Woolf?*, and Stoppard's *Rosencrantz and Guildenstern Are Dead*. (Mrs.  
 Braverman)
- 509—23   **Shakespeare: The Man, The Times, The Theatre, The Plays**  
 (1892)     Each term a cycle of related plays is read, with biographical and historical  
 (1893)     material. During the course of the two terms the class reads representative  
 tragedies, histories, and comedies. (Mr. Stableford)
- 510—123   **Forms of Literary Imagination**  
 (1901)     Each term is devoted to the study of an important literary form. In the fall,  
 (1902)     the concentration will be upon the Comic Novel (Waugh, Cary, Nabokov,  
 (1903)     and others); in the winter, upon three poets (Milton, Yeats, Hopkins); in the  
 spring, upon dramatists, ancient and modern (Euripides, Ibsen, Brecht, Shaw).  
 (Dr. Theroux)
- 512—12   **Satire and Comedy**  
 (1921)     A study of both the theories and practice of satire and comedy, with empha-  
 (1922)     ses on the eighteenth century and the modern period. Works by authors like  
 Pope, Swift, Sterne, Ben Jonson, Waugh, and Heller will be studied in con-  
 junction with the visual art of Hogarth and Steinberg, and recordings of  
 modern performers like Cohen and Sahl. (Mr. Regan)
- 513—123   **Novel & Drama Seminar**  
 (1931)     The course concentrates on major works of literature since 1880, primarily on  
 (1932)     the works of Virginia Woolf, Henry James, David Storey, Franz Kafka,  
 (1933)     Flannery O'Connor, T.S. Eliot, Samuel Beckett, Eugene O'Neill, William  
 Faulkner, Jean Paul Sartre, Saul Bellow, Gabriel Garcia Marquez, Grace  
 Paley, John Barth, Isaac Bashevis Singer, Elie Weisel, Harold Pinter, Christina  
 Stead, and Vladimir Nabokov. Students study the "world" of each writer and  
 compare it with that of the others. As a basis for the comparison with the  
 classics of the past, they also study a Greek Tragedy and *The Brothers  
 Karamazov*. Class periods are devoted to seminar discussions (often led by  
 students) and critiques of student writing. Students regularly stage dramatic  
 readings, cast and performed by the class. (Mr. Wise)
- 514—123   **Creative Writing**  
 (1941)     A writing course in poetry, short fiction, and drama. Content and emphasis  
 (1942)     shall be determined by each instructor. (Mr. Lopes, Dr. Weesner, Dr.  
 (1943)     Theroux)
- 518—3     **Milton and Spenser**  
 (1963)     Students read minor works of both authors as well as Spenser's *The Faerie  
 Queene* (Books I-II) and Milton's *Paradise Lost*. (Mr. Kalkstein)

- 27—3    **Chaucer and His Age**  
 (1973)    The wit, poetry, and genius of the later Middle Ages and Renaissance, as seen in Chaucer and medieval drama. The focus of the course is a study of *The Canterbury Tales* in Middle English. (Mr. Regan)
- 28—2    **Wit and Poetry in the Seventeenth Century**  
 (1982)    A study of the several types of concentrated, witty poetry that dominated the early seventeenth century—the schools of Donne, Jonson, Herbert, and Herrick—and of the profound effect that these poets have had on later poets like Hopkins and Eliot. Although the focus of the course is poetry, some of the background material is prose, from Plato to the modern literary critics. (Mr. Zaeder)

*The following Theatre courses, which are related to English studies, have no prerequisites: Theatre 22 (Public Speaking), Theatre 28 (Shakespearean Workshop), and Theatre 29 (Playwriting). These may be found under Performing Arts. Other courses related to English are Art 311 (Contemporary Communications) and a number of literature in translation courses and Literature of the Quest in the Interdisciplinary section.*

## History and the Social Sciences

The diploma requirement for history is successful completion of *United States History* (History 35) plus one trimester elective taken in the Upper or Senior Year.

One of the courses offered for Juniors and Lower Middlers—*The Emergence of Man*—is designed to introduce the students to a culture different from their own. A second—*Early American Society*—stresses historical topics other than politics prior to the Revolutionary period.

The History Department *recommends* that during the Lower Middle year each student should take one term of biographical study. The selection should be made from *History 20* and *21*. The Department believes that study in one of these courses will not only give the student an introduction to history through the study of great men but will also enable him to acquire certain fundamental skills in preparation for upper-level history and social science courses. The Department will emphasize various skills in reading, note-taking, the definition of historical and social science terms, the use of evidence, and the writing of historical essays.

The courses in history offered to Upper Middlers and Seniors are based on the conviction that a knowledge of the past is essential if an individual is to function effectively as a citizen in a modern democracy. The approach is topical; the traditional aim is to train students to handle historical material with discretion and to write essays containing substantive factual support for general statements; the pedagogical techniques are constantly under review.

Multi-disciplinary courses in the social sciences are also available for Upper Middlers and Seniors who wish to study particular societies of the twentieth century.

The essential purpose of all courses is to give the students training in the understanding of domestic and international problems that will serve them well as citizens. It is also hoped that for some students the courses may kindle an interest in the study of human society, past and present, that can be a source of pleasure and profit all their lives.

## Courses in the Social Sciences

### 10-1 Anthropology: The Emergence of Man

(2001) Four prepared class periods. Primarily for Juniors. This course concerns itself with the origins and nature of humanness, tracing those developments which make Man the unique animal he is. Among the specific topics covered during the term will be primate behavior, the evolution of culture and language, tool-making, and contemporary hunter-gatherer societies. Emphasis will be placed on both anthropological and archaeological techniques, as well as on reading and writing skills. In addition to readings, use will be made of films and filmstrips, and students will become familiar with fossil casts and artifacts, through the resources of the Peabody Museum of Archaeology.

### 10-2 Anthropology: The Emergence of Society

(2002) Four prepared class periods. Primarily for Juniors. This course traces the development of human society from the primitive Cro-Magnon bands of the Upper Pleistocene through the early river-valley civilizations of the Near East and equivalent New World advances. Specific topics covered during the term will include the origins of food-production, the growth of villages and cities, the advent of writing, the meaning of civilization, the state and the citizen. Emphasis will be placed on both anthropological and archaeological techniques, as well as on reading and writing skills. In addition to readings, use will be made of films and filmstrips, and students will become familiar with artifacts, through the resources of the Peabody Museum of Archaeology.

*Each of the above courses may be taken separately, but students whose schedules permit should consider taking them as a sequence, in order to obtain a full understanding of the early development of human beings and society.*

### 40-1 Environments and the Individual

(2041) Four prepared periods. Open to Uppers and Seniors. An exploration of the ways in which different societies shape growing persons, whether by conscious or unconscious design, and of the meaning of individual freedom within a social context. The course begins with a study of the socialization of children and young adults in a primitive tribe, then examines the efforts of nineteenth century theorists such as Fourier, Owen and Marx to explain individual learning or social change, and to design working Utopian communities. Moving into the twentieth century, the class compares psycho-analytic approaches to understanding human growth with behaviorist concepts of learning and teaching and enters the hereditary-environment controversy by analyzing the way in which an evaluative device (the I.Q. test) has created new social realities. Texts include: Thomas, *The Harmless People*; Marshall, *!Kung of the Nyae Nyae*; Erikson, *Childhood and Society*; Hermstein, *IQ*; Gintis and Bowles, *The New Assault on Equality* (Ms. Lloyd)



## History Courses

### 10-1 Early American Society

- 2101) Four prepared periods. For Juniors and Lower Middlers. A topical survey of pre-revolutionary American society, the course is designed to acquaint students with skills in historical exposition. Topics include the family, slavery, commerce and farming, religion and the arts. (Mr. Crawford)
- 2102)
- 2103)

### 10-1 Biography I

- 2201) Four prepared class periods. For Lower Middlers and a limited number of Juniors. As a comparative study of American leaders, the course deals with the lives of men and women who made significant contributions in several fields of endeavor. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, contemporary American eras, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperbacks: *The Autobiography of Frederick Lewis Douglass*; Samuel Eliot Morison, *Christopher Columbus, Mariner*; Ester Forbes, *Paul Revere and the World He Lived In*. (The Department)
- 2203)

### 1-2 Biography II

- 212) Four prepared class periods. Open to Lower Middlers and selected Juniors. The course deals with the lives of men and women in 17th and 18th century Europe and America. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperback: Edmund S. Morgan, *The Puritan Dilemma*; *The Story of John Winthrop*; Louis Kronnenberger, *Kings and Desperate Men*; *The Autobiography of Benjamin Franklin*. (The Department)

### 5-0 The United States

- 350) Four prepared class periods. For Upper Middlers and Seniors, though normally taken in the Upper Middle year. This course, together with an additional term course to be elected from among the 400 level history and social science courses, fulfills the diploma requirement in history. *History 35* is based on a series of paperbacks, original documents, and other readings that provide material for a survey of the history of the United States from the period before the Revolution to the present. Early topics stressed are the American Revolution, the establishment of the Federal Union, the age of Andrew Jackson, and the Civil War and Reconstruction. The emphasis then shifts to the industrialization of the United States, the problems that industrialization produced, and the attempts of the American people to deal with these problems. Finally, the course deals with the emergence of the United States as a world power, its part in two world wars, and the problems that it faces today. At the start of the course, emphasis is placed on such skills as close reading, note taking, and the writing of essays. Later on the student is introduced to different kinds of historical material, with more emphasis on discussion. In the Spring Term the writing of a research paper represents a major part of the work.

Representative titles are Edmund Morgan's *Birth of the Republic*, two volumes in Macmillan's *New Perspectives in American History* series, two

volumes in the American History Series edited by Carl N. Degler and David M. Potter, and William E. Leuchtenburg's *The Perils of Prosperity*

Candidates for the *Washington Intern Program* are selected from students taking *History 35* as Upper Middlers and Seniors. (The Department)

**401—1 Modern China**

(2411) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to traditional Chinese thought and institutions, the course will concentrate on events since 1800 in China. There will be much emphasis on China's response to the West, on economic, intellectual and political developments during the nineteenth and twentieth centuries. Readings will be from philosophy, history and literature. The classes will include both lecture and discussion. (Mrs. Sizer)

**402—2 Modern Japan**

(2422) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to traditional thought and feudal social structure in Japan, the course will move to a closer look at ideas, events and developments since 1800. An attempt will be made to understand the unique way in which Japan responded to the challenge of the West. Readings will be in historical texts, impressions of contemporary observers, sociological descriptions and literature, with a special effort to understand the outstanding features of Japanese culture, politics and economics through analysis and discussion. (Mrs. Sizer)

**407—2 The Middle East**

(2472) Four prepared class periods. For Upper Middlers and Seniors. Few if any regions of the world claim a more compelling interest than the Middle East. From its ancient site of half the earth's cultural antecedents, birthplace of three world religions, landbridge of three continents, eternal East-West corridor, and ceaseless crossroads of conquerors, pilgrims, and tradesmen, the Middle East derives a distinctive character of its own. And this course traces the region's emergence from the decline and fall of the Ottoman Empire (the famous "sick man of Europe") to the present day with an emphasis upon the political and economic aspects of the leading Arab states and Israel. But, as the name Middle East implies, the area is a global intersection and its history reflects a constant interplay between the nations of Africa and Eurasia as well as a certain "presence" of the Superpowers of our time; and it is, therefore, the center of a world security problem. Hence, the course also surveys international aspects with special attention to such matters as Middle Eastern oil and Arab-Israel relations. A term paper is part of the course's requirement. (Mr. Bunnell)

**409—1 Latin American Studies**

(2491) Four prepared class periods. Open to Upper Middlers and Seniors. This interdisciplinary course offered by the History and Spanish departments provides  
(2492) an analysis of Latin American social and political structures through the study  
409—3 of their historical and cultural development. The course will study the rela-  
(2493) tion of these structures to United States policies.

**410—123 Ancient History**

(2501) Four prepared class periods. For Upper Middlers and Seniors. The course is  
(2502) concerned with Greek and Roman history from the Minoan Period to the  
(2503) beginning of the Medieval Period. Each term represents a coherent and independent unit. In the Fall Term the survey ends with the world empire of Alexander the Great. The Winter Term covers the period from the beginning of Rome until its transition from Republic to Empire. The Spring Term is con-

cerned with Roman Empire and the transition from Roman to Medieval History. (Mr. Krumpe)

**1—1 Social History of Greece and Rome**

511) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to the study of social organization (including economic, religious and familial aspects) the course briefly considers the restrictive position of women in classical Greece. We then study Rome and the emergence from a primitive, agricultural background of an urban, enlightened attitude towards women. The complexities of the Empire and the liberal status of women, particularly in economic affairs, conclude the term. (Mrs. Clark)

**2—2 Social History of Middle Ages and the Renaissance**

522) Four prepared class periods. For Upper Middlers and Seniors. The course starts with the reshaping of Roman laws and customs by the rapidly emerging Christian doctrine; these in turn are changed by the invasions of the Germanic peoples. Charlemagne serves as the prime illustration of this medieval combination of attitudes. In the Renaissance, humanism and rationalism dignified woman as the 'Lady' of courtly love; at the same time the fear of woman as the 'witch' haunted Europe. The Reformation demoted woman from 'Lady' to housekeeper, but it established her more firmly as an appreciated, hardworking partner within the marriage and her rights steadily, if slowly, improved. (Mrs. Clark)

**40—0 Modern Europe: A Survey**

600) Four prepared class periods. Open to Upper Middlers and Seniors. The Fall term consists of a background survey of the 16th, 17th, and 18th centuries, with particular emphasis on the political, economic, and intellectual revolutions that helped to mold the modern world. The focus of the Winter Term is the period 1800-1900, with continuing attention given to the shaping of modern thought, the emergence of the nation-state, and the effects of industrialism. In the Spring Term, the course covers topics in 20th century Europe; the two World Wars, and their effect; the nature of totalitarianism; the cold war and the rise of the superpowers.

Reading is from primary and secondary sources, as well as fiction. Visual materials are used where appropriate. This course has proven to be a good preparation for the Advanced Placement Examination in European History. (Mr. Richards)

**42—2 Elizabethan England**

622) Four prepared class periods. For Upper Middlers and Seniors. The years when England was ruled by the Tudor family were some of the most colorful and pivotal in English history. During those years, crucial political and religious changes were initiated, creativity was encouraged, and England prospered. This course focuses on Elizabeth and her England in the context of the European scene and is intended to be a study in depth. Social and cultural conditions are studied as well as political and economic conditions. The books used include the Neale biography of Queen Elizabeth. (Ms. Minard)

**43—2 Stuart England**

632) Four prepared class periods. Open to Upper Middlers and Seniors. The course studies the Seventeenth Century struggles between the Stuart kings, "divine right" monarchy and the Parliament, representative government and the rule of law. Seventeenth Century England was not only the source of many fundamentals of constitutional government, but it was also central to the age of reason and science and the growth of the British Empire. (Mr. Evans)



**424—1 Victorian England: England in an Age of Expansion**

(2641) Four prepared class periods. For Upper Middlers and Seniors. The course is devoted to a study of the major movements and changes that challenged the British people from 1789 to 1901. It is divided into three periods: a study of the background of 1832, the early Victorians, and the late Victorians. The final eight weeks of the course are concerned with the last two periods. Since Victorian literature more directly influences the life and thought of the times than that of any other period of English history, the course examines closely those writers whose works were influential in adapting English minds and institutions to changing conditions. (Mr. Harrison)

**426—12 Modern Russia: History and Literature**

(2661) This course, for Seniors only, examines the past 150 years of Russian history and culture in somewhat greater depth than is possible in the one-term course (*History 427*). Though either term may be taken alone, students are urged to treat it as a two-term commitment. The first term is devoted to Imperial Russian history and culture, with an examination both of Tsarist institutions and the growing revolutionary movement. The second term is devoted to Soviet Russia since 1917; the course concludes with a close look at the U.S.S.R. today and its prospects for the future.

Considerable attention is given to the study of literature. From the days of Pushkin in the early 19th century, Russian writers have been viewed by the government with fear and suspicion. This is because, despite police harassment, and censorship, they have continued to write fearlessly about the most pressing issues of their times. As the course examines the significant events and ideas of modern Russia, it also examines the reflection of these events and ideas in the fiction and memoirs of such authors as (in the Fall Term) Pushkin, Gogol, Turgenev, Dostoevsky, Tolstoy, Chekhov, and Gorky, and (in the Winter Term) Mayakovsky, Zamiatin, Babel, Olesha, Solzhenitsyn, and writers of the contemporary underground press known as *samizdat*. (Mrs. Powell and Mr. Richards)

**427—3 The Soviet Union**

(2673) Four prepared class periods. Open to Upper Middlers and Seniors. After an initial examination of Russia's medieval and early modern background, the course focuses on the past hundred years of Russian history, with a careful study of the revolutionary changes which have transformed that country internally and created one of the great powers of the contemporary world. Although the general orientation is chronological, the course focuses on specific topics of particular significance: the tension between East and West; the rise of the intelligentsia; Lenin and the Bolshevik Party; the Stalinist totalitarian system; Soviet foreign policy; the contemporary Russian mind. Emphasis is placed on political affairs, and especially the Revolution of 1917, but considerable attention is also given to economic, social, and cultural matters. Reading is from a wide variety of sources, both primary and secondary, and also works of fiction. Visual materials, principally films, are also used. (Mr. Richards)

**430—2 The Rise and Fall of the American Presidency**

(2702) Four prepared class periods. For Seniors. The course studies the extraordinary expansion of presidential power in law and practice since the 1930's. The American presidency has been the focal point of the United States government in times when vigorous government action has been called for. The Great Depression, World War II, the Cold War, the Civil Rights Revolution, the War on Poverty, and the Vietnam War—all called for the increased powers for the executive. And Presidents Roosevelt, Truman, Kennedy, Johnson, and



Nixon seized the opportunities to expand presidential power. But in the Nixon administration, the nation saw executive usurpation of illegal powers, a subversion of the Constitution, and a threat of presidential tyranny. The climax was the "imperial presidency" and impeachment. The course consists of class discussions and several short analytical papers. The readings are drawn from: James Barber, *Presidential Character*; Anthony Lukacs, *Nightmare*; and Arthur M. Schlesinger, Jr., *The Imperial Presidency*. (Mr. Lyons)

#### 2—1 International Relations: The Present Patterns

Four prepared class periods. For Upper Middlers and Seniors. In its essentials the course is limited to the contemporary era of international affairs, a span of years that is now more than a quarter of a century old, extending from the diplomacy of World War II to the current era of detente. The emphasis is upon the international politics of the world's two superpowers, the United States and the Soviet Union: how they created the United Nations, the Cold War, the many alliances, the nuclear arms race, and the numerous confrontations between themselves and their respective allies; how, too, they prompted the formation of the Third World and repeatedly intervened in its affairs with financial aid, advice, arms, alignments and troops; and finally, some reasons why they continue to perpetuate these massive manifestations of their great power. The course does not seek to fix praise or blame but rather to discern and comprehend the main lines of the predicament and to suggest possible alternatives. Textbooks, the periodic literature of journals, monthly and fortnightly publications, and newspapers are all employed. (Mr. Bunnell)

#### 3—12 The City in America

Four prepared class periods or the equivalent. Limited to fifteen Seniors and Upper Middlers. Prerequisite: permission of the instructor. Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing via nine brief weekly papers, oral presentations, analytical and interpretive thinking. Fall Term work focuses not only on definitions of "city" and "American city," but also on the proper role of the historian toward the city, and on the evolution of the city from prehistoric times through the American colonial period. The Winter Term deals with different "types" of American cities—such as New York, Salt Lake City, Los Angeles—evolving between the Eighteenth and Twentieth Centuries.

The course entails occasional visits to Boston and Lawrence, and continuous monitoring of ten urban newspapers, such as the *Atlanta Constitution*, the *Chicago Daily News*, and the *Denver Post*. General readings include: Edward Banfield, *The Unheavenly City Revisited*; Lewis Mumford, *The City in History*; urban novels like Theodore Dreiser, *Sister Carrie*; and monographs like Gunther Barth, *Instant Cities*. (Mr. Quattlebaum)

#### 4—3 The City in America

Prerequisite: *History 434-1* or *History 434-2*. The student embarks on an individual, historical research project, either on a particular American city or on a selected aspect of several cities. (Mr. Quattlebaum)

#### 5—1 Schools in America

Four prepared periods. For Upper Middlers and Seniors. The course analyzes the purposes for schooling perceived during the nineteenth and twentieth centuries and the institutions Americans created and supported to promote those purposes. Reading is drawn from historical sources and from contemporary social science and philosophy. Students are expected to relate the material to the "aims" of their own educations. (Mr. Sizer)

**436—1 Families in America**

(2761) Four prepared periods. For Upper Middlers and Seniors. The course examines family structure, function, and development from the colonial period to the present. Sex role, methods of child nurture, economic base of the family, and varieties of family patterns growing out of different ethnic backgrounds are among the major topics studied. Readings are drawn from primary and secondary sources. (Mr. Crawford)

**438—12 The American South (Not offered in 1979-80)**

Four prepared class periods or the equivalent. Limited to fifteen Seniors and Upper Middlers. Prerequisite: permission of the instructor. Heavy emphasis on seminar skills useful for college and beyond; selective reading, effective writing via nine brief weekly papers, oral presentations, analytical and interpretive thinking. This course is a survey of the American South from Jamestown in 1607 to Houston, Los Angeles, and the Carter Administration in the 1970's. It explores southern identity, economy, class structure, slavery, race relations, violence, and late-twentieth-century ascendancy, among other themes. The Fall Term concludes with the Civil War. The Winter Term covers the Era of Reconstruction to the present. Readings include: Sheldon Hackney, "Southern Violence"; W.J. Cash, *The Mind of the South*; Kenneth Stampp, *The Peculiar Institution*; John Hope Franklin, *A Southern Odyssey*; Richard Wright, *Black Boy*; C. Vann Woodward, *The Burden of Southern History*; and Kirkpatrick Sale, *Power Shift: The Rise of the Southern Rim*. (Mr. Quattlebaum)

**440—3 Quantitative Historical Data Analysis**

(2803) Four prepared periods. Prerequisite: Permission of the Instructors. This course provides an introduction to the use and abuse of quantitative methods in historical research. Attention focuses on three main areas: elementary statistics, relevant historical literature, and the logic of historical inquiry—that is, the fundamentals of research design. To accomplish these purposes, participants do assigned homework problems on statistics and read exemplary works in the field, in order to discuss their merits and demerits. Most of the reading is from two books: Hubert M. Blalock, Jr., *Social Statistics*; and Robert P. Swierenga (ed.), *Quantification in American History*. (Messrs. Best and Quattlebaum)

**443—2 Topics in the History of Phillips Academy and Abbot Academy**

(2832) Four prepared class periods or the equivalent. Involving work in the Phillips

**443—3 Academy and Abbot Academy Archives on some aspect of history of the**  
(2833) schools, the course introduces the student to the problems of working with the raw materials of history. Permission of the instructor is required for enrollment. (Mrs. Quattlebaum)

## Interdisciplinary

*All courses are electives. Courses in this section may be taken during more than one trimester unless the individual description indicates to the contrary.*

**(9311) Basic Study Skills**

(9312) Four class periods. Open to Lower, Uppers, and Seniors, and to Juniors in the  
(9313) Winter and Spring. Permission of the instructor required. The course is designed to help students build effective reading and study skills through understanding more about the learning process. Class discussion focuses on the problems of motivation, concentration and retention. Exercises are designed to

work on improvement in each of these areas and to develop proficiency in planning studying time, in developing accurate yet flexible reading comprehension, in taking notes or marking books, and in preparing for exams. When possible, students' texts from other courses are used for instruction. This course may be taken for at most one term. (Mrs. Tappan)

#### Epic Poetry (Not offered 1979-80.)

Four prepared class periods. Each term is a prerequisite for the following term. This course focuses on Western epic poetry; the poems are delightful, unique literary monuments of great importance in the development of Western literature, and they are a fascinating means of learning about Indo-European culture, human psychology, and man's creative history. Fall term focuses on western cultural development and on psychology, with reading primarily from Bettelheim's *The Uses of Enchantment* and Frazer's *Golden Bough*. Winter and Spring Terms are devoted to the epics themselves as literature and as evidence of the Fall Term's material. *Gilgamesh*, the *Iliad* and *Odyssey*, the *Song of Roland*, *Beowulf* and Tolkien's *Lord of the Rings* are read, as well as excerpts from other European epics.

#### (351) Etymology

(352) Four prepared class periods. For all classes. Training in the interpretation of English words by systematic analysis of elements derived from Greek, Latin and other Indo-European languages. Exercises expand vocabulary and develop precision of expression and understanding. The course may be taken for at most one term.

#### (363) French Music in French

Four prepared classes. The course will concentrate on the work of the last hundred years, beginning with a brief study of French opera. It will then focus on artistic life in Paris at the turn of the century and in particular on the music of Debussy. The course will conclude with a study of some more recent artists, among them Edith Piaf and the "chansonnier" Georges Brassens. The emphasis throughout will be on the relationship between music and language. Very little instrumental music will be discussed. Students should be at third-year level in French or higher, and, although the discussion will avoid being too technical, they should have some basic knowledge of music, such as is provided in *Music 20*. (Mr. Walter)

#### (371) Greek Literature in Translation

Four prepared class periods. Open to all classes. A systematic study of the masterpieces of early European civilization as seen in their proper literary, intellectual, and historical context. In what is essentially a history of ideas, the major genres of epic, tragedy, comedy, satire, history, erotic poetry, and philosophy are stressed as aspects of the wider evolution of early European thought which laid the basis for modern civilization. The major problems which still confront human life are explored through the writings of Homer, Aeschylus, Sophocles, Euripides, Herodotus, Thucydides, Aristophanes, Plato and others. (Dr. Pottle)

#### (381) Literature of the Quest

(382) Four prepared class periods. Open to Seniors. Focusing on the ancient pattern of the journey, the thresholds crossed and the insight gained, the course asks students to interpret elements of the quest from a variety of perspectives. In the Fall Term readings include *Oedipus Rex*, the Abraham cycle, *Don Quixote* (parts), *Black Elk Speaks*, Castaneda's *Journey to Ixtlan*, and *To the Light-house*. The Winter Term considers the suffering met on the quest and

explores themes from *King Lear*, Wiesel's *The Gates of the Forest*, *The Great Gatsby*, West's *Miss Lonelyhearts*, and Flannery O'Connor's stories. The Spring Term questions the journey's end, reading the Jacob cycle, John's gospel, *The Tempest*, *The Wizard of Oz*, *Who's Afraid of Virginia Woolf?*, and Buechner's *Entrance to Porlock*. (Mr. Zaeder)

(9392) **Roman Literature in Translation**

Four prepared class periods. Open to all classes. A systematic study of the Latin masterpieces as seen in their proper literary and historical contexts. The central theme of the course is that of the artist and his or her society in an age of empire. Through the writings of Cicero, Virgil, Ovid, Suetonius, Tacitus, Petronius, Apuleius and others, this course examines the tension which held between the realm of artistic self-expression and the world of political power realities. The larger question of the relationship between the artist-intellectual and his or her society is studied in the context of imperial Rome. (Dr. Pottle)

(9401) **Russian Literature in English**

Four prepared class periods. The themes of romanticism, realism, the "superfluous person", Slavophilism, westernism, nihilism, perfectionism, and humanism are examined in the works of Pushkin, Lermontov, Gogol, Turgenyev, Goncharov, Ostrovsky, Dostoyevsky, Tolstoy, Chekhov, and Gorky, both as styles of literary expression and as stimuli of Russia's social and political development. (Mr. Lane)

(9412) **Soviet Literature in English**

Four prepared class periods. A study of the conflict of individual freedom and social purpose in Russia since the Revolution, based on selected translations. Socialist realism, satire, divided personality, and dissent are examined against the Soviet political and economic background and in the perspective of Russian literary traditions. (Mr. Lane)

(9423) **Synthesis**

Four prepared class periods. Open to Seniors. This course focuses on problems which require for their understanding and resolution the concurrent use of a number of disciplines. (Messrs. Roehrig and Sizer)

(9601) **Typing**

(9603) This course in personal typing is open to all students; it is designed for beginners to learn the keyboard and basic typing skills. There is no charge, but students must supply their own typewriters. This course does not earn academic credit. (Mrs. DiClemente)

*For other courses which are interdisciplinary in nature, see Art 311.*

## Mathematics

Mathematics at Andover is addressed to several overlapping audiences within the student body: the future citizen of late twentieth century society, immersed in a culture which has been shaped to a large extent by mathematical perceptions of reality; the future user of mathematics, whose vocation may depend upon special knowledge of a



mathematical sort; and the future mathematical scholar, who may turn his energies and curiosity to the organization or dissemination of mathematical knowledge.

The mathematics curriculum is built around a core sequence of eight trimester courses: three of elementary algebra, two of geometry and three of precalculus topics. The completion of these eight trimesters will satisfy diploma requirements, but an additional trimester may be required of some students before entering the calculus. Students entering with little or no prior study of algebra normally start with *Mathematics 10*; those with a partial year of algebra enter *Mathematics 19-1* and continue to *Mathematics 20-23*. Students entering with a full year of algebra enter *Mathematics 20-12*. Those with one year of algebra and one year of geometry will satisfy diploma requirements by taking the first three precalculus trimesters: either *Mathematics 30-0*, or *Mathematics 32* and *35 (T2)*.

Placement of new students in the appropriate first course is made by the department considering the record in previous schools, the results of a self-administered diagnostic test in elementary algebra which is sent to newly admitted students in the Spring, and the course program chosen by the entering student. In general, algebra courses taken before the eighth grade and geometry courses taken before the ninth grade will not earn placement credit. Examinations to validate first and second year algebra skills are given early in the Fall trimester, at which time students who are incorrectly placed can be shifted to higher or lower level courses.

It is best to take the College Entrance Examination Board Achievement Test in Mathematics near the end of or immediately following the precalculus sequence.

For students who wish to go beyond the required level, the department offers many electives, some of which lead up to and beyond the Advanced Placement Calculus Examinations of the College Board. The prerequisites of these elective courses should be noted, particularly by students who are involved in Off-Campus Programs.

### Computer

In addition to its course offerings, the department manages the campus computer time-sharing system. The computer, a Digital Equipment Corporation PDP-11/45, is housed in the Mathematics building and serves sixteen teletypewriter terminals, of which ten are available for student use.

The department is in the process of expanding its mini-computer facilities. The present Radio Shack TRS-80 Level II with 16K ROM is to be joined by an Apple II and several other mini-computers in the next two years.

### Hand Calculators

Every student taking Mathematics or Physical Science must have a suitable hand calculator capable of handling square roots, sines, cosines, reciprocals, logarithms and exponents. Any calculator comparable to the SR-40 is adequate for all course use.

## Courses Leading to Satisfaction of the Diploma Requirement:

### 10—0 Elementary Algebra

(3100) Five prepared class periods. A year-long course for students who have had less than half a year of algebra. Stress is placed on an understanding of the elementary structure and language of the real number system, on the manipulative skills of simplifying expressions and solving first and second degree equations, and on the study and graphing of polynomial functions. Significant work is done with word problems, inequalities, irrational numbers, right triangle trigonometry, and an introduction to computer programming in BASIC. Prerequisite: None.

### 19—1 Algebra

(3191) Five prepared class periods. A course completing elementary algebra for entering students whose knowledge is substantially less than the coverage of *Mathematics 10-0*. Prerequisite: From a half to a full year of algebra.

### 20—12 Geometry (T2) (a two-term commitment)

(3204) Five prepared class periods. A two-term course for students who have had a strong ninth grade algebra course, but no geometry. This course is a thorough and systematic presentation of synthetic Euclidean geometry. Strong emphasis is placed on the need for precision and clarity in the writing of formal proofs. Prerequisite: A complete course in elementary algebra comparable in coverage to *Mathematics 10-0*.

### 30—0 Precalculus

(3300) Five prepared class periods. A year-long course for students with one year of algebra and one year of geometry. Completion of this course satisfies the diploma requirements. Topics include use of the computer; the structure of groups and fields, with applications to elementary algebra; polynomial, circular, exponential and logarithmic functions and their applications.

Because of the extra period per week in the last two terms, some students, upon completion of this course, may, with department permission, enter *Mathematics 51-1*, or *Mathematics 55-0*. Those who do not receive permission must first take *Mathematics 36* if they wish to enter the calculus sequence. Prerequisite: Credit for one year of algebra and one year of geometry, or *Mathematics 20-23*.

### 31—0 Geometry and Circular Functions

(3310) Five prepared class periods. A year-long course for entering students who have not studied geometry. The course covers Euclidean and coordinate geometry, the circular functions and their geometrical applications. Offered only when demand is sufficient. Prerequisite: Credit for one year of elementary algebra and one year of intermediate algebra.

### 32—3 Precalculus

(3323) Five prepared class periods. Topics in intermediate algebra, including sets; properties of real numbers; factoring; fractions; exponents; radicals; solutions of equations; coordinate geometry; and right triangle trigonometry. Prerequisite: *Mathematics 20*, or its equivalent.

### 35—12 Precalculus (T2) (a two-term commitment)

(3354) Four prepared class periods. More topics in intermediate algebra, including use of the computer; absolute value; inequality; linear, quadratic, polynomial, exponential, logarithmic, trigonometric, and inverse functions; graphing and applications of these functions. Completion of this course satisfies the diploma requirement. Prerequisite: *Mathematics 32*, or its equivalent.

- 36—1 **Precalculus**  
 3361) Four prepared class periods. Required of students coming from 35 (T2) who  
 36—3 plan to study calculus. Topics that bridge the gap between algebra and calcu-  
 3363) lus, including sequences and their limits; area functions; summation and  
 mathematical induction; vectors; group structure; complex numbers; field  
 structure. Prerequisite: *Mathematics 35* or its equivalent.
- 37—12 **Elementary Functions (T2)** (a two-term commitment)  
 3404) Five prepared class periods. A two-term course for entering Seniors who have  
 not had trigonometry but have studied three years of mathematics in high  
 school. Required of those students whose prior work may be found not to  
 satisfy diploma requirements. Work focuses on a review of the fundamentals  
 of algebra, and the elementary functions. Enough trigonometry is done in the  
 Fall Trimester so that students with high quality work may satisfy the diploma  
 requirements and take *Mathematics 50-23 (T2)*. Prerequisite: Credit for three  
 years of high school mathematics. Not open to students from *Mathematics 30*,  
*35*, or *36*.

### Elective Courses

*Only courses with sufficient enrollment will be given.*

- 38—1 **Exploring Data**  
 3411) Four prepared class periods. An introduction to techniques of uncovering the  
 38—2 useful information contained in masses of numerical data. No reliance is  
 3412) placed on the knowledge of or development of heavy mathematical tools.  
 38—3 Prerequisite: None.  
 3413)
- 39—12 **Probability and Statistics (T2)** (a two-term commitment)  
 3424) Four prepared class periods. Includes sample spaces, counting problems,  
 sampling, conditional probability and applications using the computer. Ran-  
 dom variables, expected value, variance and standard deviation. Applications  
 of the binomial and standard normal distributions, hypothesis testing and  
 statistical inference. Prerequisite: *Mathematics 30* or *35*.
- 40—3 **Statistics**  
 3423) Four prepared class periods. Applications of statistical inference to social and  
 physical sciences. Estimation and hypothesis testing. Prerequisite: *Mathematics*  
*42-12 (T2)*.
- 41—3 **Transformation Geometry**  
 3443) Four prepared periods. A geometry course designed to show that the interplay  
 between geometry and algebra enriches both subjects. Area, similarity, and  
 symmetry in geometry are examined through mappings, vectors and groups  
 from algebra. Prerequisite: *Mathematics 30* or *35*.
- 45—1 **Mathematics Revisited**  
 3451) Four prepared class periods. A course of refreshment for those who have  
 satisfied diploma requirements early in their high school careers but who have  
 since discovered a vocational or other need for resuming study. Another  
 objective of the course is to review for the Level II Achievement Test of the  
 C.E.E.B. Prerequisite: Prior completion of diploma requirements and depart-  
 mental permission.

- 46—3 Theory of Numbers**  
 (3463) Four prepared class periods. A study of the elementary theory of numbers, emphasizing the arithmetic of the integers. First consideration given to divisibility and prime numbers, ideas that underlie much of the later work. Other topics considered are congruences, Diophantine equations (and Fermat's Last Theorem), continued fractions, and certain special numbers. Prerequisite: *Mathematics 30 or 35.*
- 47—1 Computer Programming**  
 (3471) Four prepared class periods. An introduction to programming in the BASIC-PLUS code. The solution of mathematical problems with computer assistance.  
 47—2 Depending on the instructor, the focus may be on a central theme such as  
 (3472) cryptanalysis, statistics, data processing, or linear programming. Prerequisite:  
 47—3 *Mathematics 30 or 35.*  
 (3473)
- 48—3 Numerical Methods (Not offered in 1979-80.)**  
 Four prepared class periods. A course which investigates the solution of numerical problems using both the computer and the hand calculator. Stress is laid on the approximations necessitated by the number system peculiar to the computer. Problems dealt with include finding zeros of functions (including complex zeros), solutions of simultaneous equations, fitting curves to data, and approximating functions with polynomials. Prerequisite: Open to Upper Middlers and Seniors with previous programming experience, and to others by permission of the instructor.
- 50—23 Elementary Calculus (T2) (a two-term commitment)**  
 (3505) Four prepared periods. This course, primarily for seniors, does *not* specifically prepare for the Advanced Placement Examination. Topics include: techniques and applications of both the derivative and the definite integral; Fundamental Theorem of the Calculus. Prerequisite: *Mathematics 36-1.*
- 51—1 Elementary Calculus**  
 (3511) Five prepared class periods. The first of a three course sequence that covers  
 51—3 the syllabus for the AB Advanced Placement Examination of the College  
 (3513) Entrance Examination Board. Topics covered include: review of functions and graphing, theory of the definite integral, introduction to the derivative and its applications. Prerequisite: *Mathematics 30* with department permission; *Mathematics 36.* or the equivalent.
- 52—12 Elementary Calculus (T2) (a two-term commitment)**  
 (3524) Five prepared class periods. Theory of the derivative, chain rule of differentiation, related rates, Rolle's Theorem, Mean Value Theorem, techniques and  
 52—23 applications of integration, Fundamental Theorem of the Calculus. Prere-  
 (3525) quisite: *Mathematics 51.*
- 54—3 Infinite Series and Differential Equations**  
 (3543) Five prepared class periods. This course extends the work of *Mathematics 52* to prepare the student for the College Board BC Advanced Placement Examination. Prerequisite: *Mathematics 52* or may be taken simultaneously with 52.
- 55—0 Honors Calculus**  
 (3550) Five prepared class periods. A year-long course in analytic geometry and calculus which begins only in the Fall. Students contemplating Off-Campus Projects at some time during the year should not enroll in this course. Enrollment is limited to able and committed mathematics students, as the coverage is more theoretical and extensive than that of *Mathematics 51, 52.* Satisfactory



completion of this course prepares for the College Board BC Advanced Placement Examination. Prerequisite: *Mathematics 30* or *36-3*, and departmental permission.

51-0 **Calculus Continued and Other Topics**

3610) Four prepared class periods. The course completes preparation for the College Board BC Advanced Placement Examination, but also includes additional topics at the discretion of the instructor. Prerequisite: *Mathematics 52*.

55-0 **Linear Algebra and Vector Calculus**

3650) Four prepared class periods. For students of demonstrated ability and interest who intend to continue their studies of mathematics in college. Vector spaces, linear transformations, matrices, determinants, systems of linear equations, the calculus of functions with vector arguments and vector values. Prerequisite: *Mathematics 55* or its equivalent.

### Special Courses

30-1 **Mechanical Drawing (Elementary)**

3701) Two prepared class periods and four unprepared. Not open to Juniors. A term-contained beginning drawing course that includes the use of drawing instruments, lettering, geometric constructions and loci, sketching, orthographic projection, and spatial relations. Special stress is placed on a thorough mastery of fundamental concepts and skills.

31-2 **Mechanical Drawing (Intermediate)**

3712) Two prepared class periods and four unprepared. A term-contained drawing course in applied Descriptive Geometry and Graphics involving work in sectioning and conventions, isometric and oblique pictorial projections, intersections, revolution, primary auxiliary views, and developments. Prerequisite: *Mechanical Drawing 30*.

32-3 **Mechanical Drawing (Advanced)**

3723) Two prepared class periods and four unprepared. A term-contained technical drawing course consisting of substantial work in dimensioning, detail and assembly engineering drawing, print reading, successive auxiliary views, and/or fundamentals of design. Prerequisite: *Mechanical Drawing 31*.

30-1 **Navigation (Coastal Piloting)**

3731) Four prepared class periods. Not open to Juniors. A term-contained course in Piloting: i.e., marine navigation within sight of land or landmarks. Substantial dead reckoning and special case plotting is done on charts and small area plots. Aids and dangers to navigation are studied. Practical use is made of Tide and Current Tables, Light Lists, compass correction, radio, radar, and Loran.

31-2 **Navigation (Celestial)**

3742) Four prepared class periods. A term-contained course in Celestial Navigation: i.e., navigating at sea by means of the stars, sun, moon, and planets. Nautical astronomy is studied. Significant work is done in coordinate conversion, time, altitude intercept theory, the solution of the Navigational Triangle by HO 214, HO 229, and the Nautical Almanac, special lines of position, the use and correction of a marine sextant, times of observational twilight, and "a day's work" at sea. Prerequisite: *Navigation 30*.

## Modern Foreign Languages

Andover's requirement of at least three years of an ancient or modern language rests on the firm belief that direct acquaintance, through language, with the spirit and people of other lands is a psychological and intellectual resource of inestimable value for each individual, for every country, and for our common world.

The diploma requirement is customarily satisfied by completion of a 9th-trimester course reached through the regular or the accelerated sequence. Placement of new students is based on their previous school record, on the questionnaire sent to them and their current language teachers in the spring, and, when appropriate, on a personal interview with the language chairman at Andover. Details regarding various options and the diploma requirement as it is applicable to "incoming Uppers and Seniors who begin a new language at Andover" are available from the Registrar's Office.

With the exception of Italian (limited to Seniors), each of our languages, ancient and modern, may appropriately be started by students of any grade, Juniors (9th) through Seniors. Many Andover students continue their language study beyond the third year, and a good number of them simultaneously study two or even three languages.

Small classes, flexible placement, and opportunities for acceleration assure that each student is in the optimum learning situation. The foreign language is the language of the classroom. In conversation, in reading, and in writing, the goal is direct communication in the foreign language rather than through translation. The classroom experience is expanded by the language laboratory; media resources (e.g., periodicals, radio broadcasts, movies); the staging of plays; club activities; language events and programs at Andover or nearby schools. At all levels of instruction attention is focused both on basic language skills and, increasingly, on the literature, history, and various art forms which reveal the people whose languages are being studied.

For information on School Year Abroad and other opportunities to study abroad, students should see their language instructor or the chairman of the Language Division.

## French

The French Department offers a six-year course of study. The first two years are devoted to teaching the basic language structure. In the third year, while continuing to progress in the language, a student is given the opportunity to choose the trimester courses which best serve his needs. Fourth and fifth-year courses offer study in depth of both literature and civilization. Students who demonstrate unusual aptitude and interest during the first year of study are invited to enter special sections which move ahead more rapidly without demanding more time. Those who complete the accelerated sequence may meet the

diploma requirement after seven trimesters as they move directly into fourth-year courses.

In all courses, students are taught to understand, speak, read, and write the language paralleling as closely as possible the natural order of learning. French is the language of the classroom and at no time does the department teach the art of translation.

#### 0—0 Beginning French

- (010) Five prepared class periods. First-year French for students who have had no previous courses in the language. Students make frequent use of the language laboratory. Listening comprehension and the use of basic patterns of French speech are emphasized. Elementary grammatical and idiomatic structures are introduced, as well as simple reading material. Text: Mauger, *Cours de langue et civilisation françaises*.

#### 1—0 First-Level French

- (030) Five prepared class periods. This first level French course is designed to help the student who has had previous instruction in the language, but whose knowledge and skills are not secure enough for him to enter a regular second-level section. It is also appropriate for students with experience in other languages who wish to begin the study of French. The course emphasizes the development of aural-oral skills and prepares for *French 21* the following year. Text: *Méthode de Français*; Boorsch-Capretz.

#### —23 Accelerated First-Level French (T2) (a two-term commitment)

- (045) Five prepared class periods. An accelerated course beginning in the winter and offered to students in *French 11* who are doing honor work. This course is continued in *French 22*. Text: *Méthode de Français*; Boorsch-Capretz.

#### 1—0 Second-Level French

- (060) Five prepared class periods. For students who have completed *French 11* and for new students who qualify through teacher recommendation or placement examination. While continuing to develop aural-oral skills, the aim of this course is to teach reading and the ability to understand non-technical French prose. Texts: Campbell et Bauer, *La Dynamite*; Gibson, *Anthologie*; Goscinnny, *Le Petit Nicolas*; *Méthode de Français*; Boorsch-Capretz.

#### —12 Accelerated Second-Level French

- (071) Five prepared class periods. An accelerated course open to students who have completed *French 12* and to properly qualified new students. Successful completion of this course permits students to enroll in regular courses at the third level during the Spring Term. Texts and reading materials include: Campbell et Bauer, *La Dynamite*; Sartre, *Les Jeux sont faits*; Sturges, Cregg, Herbst, *Une fois pour toutes*; Kirkland, Knox, *A mon avis*. By permission of the Department Chairman.

#### Third-Level Courses

At the third level, progress in all language skills continues through their application in the study of a particular area.

These courses are designed to provide program flexibility trimester by trimester. To provide continuity, systematic and coordinated grammatical review is incorporated sequentially into all courses. The text used for this review is Sturges, Cregg, Herbst, *Une fois pour toutes*.

- 30A—0 Language Review and Contemporary French Life**  
 (4080) Five prepared class periods. For students who have successfully completed 21 but who have need of further instruction in basic language structures. By permission of the Department Chairman.
- 31—123 Selected Readings**  
 (4101) Four prepared class periods. Reading comprehension skills are developed  
 (4102) through a study of texts such as the following: Simenon, *Le Chien Jaune*;  
 (4103) Saint-Exupéry, *Le Petit Prince*; Pagnol, *Topaze*; Vercors, *Le Silence de la mer*; Goscinnny, *Uderzo, Astérix et Obélix*; *Le Tour de Gaule*; Camara Laye, *L'Enfant Noir*.
- 32—3 Village Français**  
 (4113) Four prepared class periods. Using impressions and misimpressions of French and Americans of the other's culture as points of departure, this course attempts to give the student a greater understanding of the French people and their institutions as reflected in the microcosm of a town. Using the student's hometown as a basis of comparison, several French towns are examined in depth, including the provençal towns of Roussillon and Cassis and a town of the student's own choice. The basic text, Wylie, *Village en Vaucluse*, is complemented by readings, lectures, original documents and both national and regional newspapers and magazine articles. (Mr. Sturges)
- 33—12 French History**  
 (4121) Four prepared class periods. This course concentrates on the main events and  
 (4122) personalities from the reign of Louis XIV to the Second World War. There is a combination of lectures by the instructor, class discussions, slide and film presentations, and student reports. Text: *Initiation à la culture française* by Parker and Grigaut. (Mr. Anderson)
- 34—1 Intensive Conversation and Phonetics**  
 (4131) Four prepared class periods. A special emphasis on specific aspects of spoken  
 34—2 French. Intended for students who understand French rather well but need  
 (4132) to gain confidence and fluency in speaking. Dialogues, speeches, debates, interviews, and role-playing are reinforced by study of topical vocabulary,  
 34—3 idiomatic expression, and applied phonetics. Text: Frautschi and Bouygues,  
 (4133) *Pour et contre*.
- 35—2 Written Expression**  
 (4142) Four prepared class periods. Study and writing of basic sentence structures  
 35—3 and their integration into paragraphs and compositions. Students' writing, to  
 (4143) which instructors give close, individualized attention in small classes, is based generally on selected, short readings. The course seeks a balance between different forms of writing, both original and imitative, (description, narration, dialogue, exposition, communication). Text: Limouzy et Bourgeacq, *Manuel de Composition française*
- 36—123 Literature and Film**  
 (4151) Four prepared class periods. Usually two works of fiction are studied along  
 (4152) with two films each term. The books and films for the course vary from year to year. In 1978-79 the films and books included: Fall term: Jean Renoir, *Une Partie de Campagne*, *La Grande Illusion*, *La règle de Jeu*, de Maupassant, scénario de *La grande Illusion*. Winter term: Cocteau, Clément, *La Belle et la Bête* Clément, *Les Jeux Interdits*; Mme. Le Prince de Beaumont, *La Belle et la Bête*. François Boyer, *Les Jeux Interdits*. Spring term: Jean-Luc Godard *Masculin-Féminin* et *Deux ou trois choses que je sais d'elle*; Maupassant, *La*



*femme de Paul* and scénario de *Deux ou trois choses que je sais d'elle*. The films and books for the course are usually supplemented by trips to Boston and books on "library reserve".

### 9-3 Initiation to the French Theatre

- (173) Four prepared class periods. An active participation course in which the student follows one play from the initial reading through its final production, taking part at each step of the way. Four major phases: Reading, Analysis, Production, Performance. Throughout the course, the vocabulary of French theatrical production is studied and used.

French Music in French, *an additional Third-Level Course, may be found in the Interdisciplinary section.*

### 123 Fourth-Level French

- (181) Four prepared class periods. The course consists of three term-contained units and may include the reading of French classics and the works of modern  
(182) authors, as well as conversation and composition. The choice of texts in each  
(183) trimester is determined by the class and the instructor.

### 1-0 French Literature

- (190) Four prepared class periods. The first year of a two-year sequence leading to the Advanced Placement Examination in French Literature, open to students who have completed three trimesters of third-level courses or *French 22* and one third-level trimester course, and to properly qualified new students. It is a transition from the study of language to the study of literature. Emphasis is placed on vocabulary building, written work, and close analysis of major literary works. Texts include: Camus, *L'Etranger*; Voltaire, *Candide*; Ionesco, *Rhinocéros*; Balzac, *Le Colonel Chabert*; and Mauriac, *Thérèse Desquérax*. Permission of the Department Chairman required.

*This course is also offered in the School Year Abroad program in Rennes.*

### 1-12 French Civilization

- (201) Four prepared class periods. Students electing these courses should be inter-  
(202) ested in France's past civilization and cultural achievements. A thematic study is made of the great periods of French civilization from its origins in Celtic Gaul through the end of the 19th century. Areas studied include historical, social, artistic, and literary developments. Each course is a combination of lectures, class discussions, slides, films, and students' oral reports. It is complemented by the reading of short literary and historical selections.

The first trimester begins with an introduction to French geography and then examines ancient Gaul, the era of Charlemagne, medieval society, the Renaissance, and the "Grand Siècle" (17th century). The second trimester studies the ideas of the philosophers and revolutionaries which influenced European and American life and political institutions. Also discussed are the important social and economic changes brought on by the Industrial Revolution. (Mr. Krivobok, Mr. Herbst)

### -3 Le Monde Francophone: French Civilization Outside of Europe

- (203) Four prepared class periods. As an international colonial power France spread her culture throughout the world. The course studies the resistance to and the assimilation of French culture by the native cultures. The student has the opportunity to study the 17 French civilizations in West, Equatorial, and North (Arab) Africa as well as the French civilization of the Antilles (Haiti, Martinique, and Guadeloupe). In addition to geographical, social, and

historical study, selections are read from authors such as President Senghor, Cheikh Hamidou Kane, Aimé Césaire, Guillaume Oyo M'Bia, Birago Diop. (Offered in 1979-80. Not offered in 1980-81.)

43-3 **Québec et les Québécois**

Four prepared class periods. Because of its geographical situation l'Phillips Academy has a unique opportunity to merge the study of French with direct observation of and participation in the North American "French experience" which is just across the nearby Canadian border as well as in the many communities surrounding Andover with large Franco-American populations. Some amount of theory is balanced with observation and analysis of every-day life in Québec province to understand its political, economic, and social institutions, and such areas as religious, educational, and artistic life. Emphasis is on a close study of the media of the province as well as personal involvement through liaison with Québec schools, students, and newspapers, and through contact with French-speaking areas of Massachusetts and New Hampshire. The course may culminate in a trip to Québec. (Mr. Dix) (Not offered in 1979-80. To be offered in 1980-81.)

44-1 **Advanced Conversation and Phonetics**

(4221) Four prepared class periods. Intended for students who understand, read and write French well and who already speak at a competent level, but who feel the need for further drill in conversational patterns, and idiomatic expression. Diction, intonation and elocution are also stressed through memorization, role-playing, speeches, and debates. Text: Knox, *Rencontres*.

51-123 **Advanced French Language**

(4261) Five prepared class periods. A course designed to meet the requirements of the  
(4262) Advanced Placement Examination in French Language. Open to students who  
(4263) have completed three terms of fourth-level French and to qualified new students. Emphasis is placed on vocabulary, conversation, composition, and reading, not only in literature, but in current newspapers and periodicals. The choice of texts is determined by the class and the instructor.

52-0 **Advanced French Literature**

(4270) Five prepared class periods. The second year of a two-year sequence, open with departmental permission to students who have completed *French 42* and to others who are properly qualified. This course is an introduction to French literature and prepares for the Advanced Placement Examination in French Literature through the close reading of representative texts including: La Fontaine, *Fables*; Molière, *L'Avare*; Racine, *Phèdre*; Beaumarchais, *Le Barbier de Seville*, Musset, *Lorenzaccio*; Flaubert, *Un Coeur Simple*; Baudelaire, *Les Fleurs du Mal*; and poetry of Hugo, Rimbaud, Apollinaire, Césaire and Damas.

60-123 **Contemporary French Literature**

(4281) Two prepared class periods plus one weekly (90 minute) seminar. The course  
(4282) studies selected novels and dramas representative of the Pre-War and Post-War  
(4283) eras. Emphasis is on particular writers and what they add to our understanding of the human condition in our times. Authors studied may include: Proust, Gide, Céline, Malraux, Mauriac, Aragon, Saint-Exupéry, Giono, Montherlant, Anouilh, Giraudoux, Aymé, Camus, Sartre, Robbe-Grillet, and Daninos.

(9001) **Senior Projects**

(9002) Qualified seniors may undertake independent study projects in French under  
(9003) the direction of a faculty supervisor. Those who wish to do apprentice

teaching during either the Winter or the Spring Term will study the techniques and methods of modern language instruction and will practice, under careful supervision, in beginners classes.

## man

The German Department offers a six-year course with the purpose of developing the ability to understand spoken German, facility in speaking, reading fluency, and the ability to write German correctly. The more advanced courses give an introduction to German literature since the eighteenth century and a survey of German history, culture and geography. German is used as the classroom language. Extensive use is made of the Language Laboratory.

The Department offers an accelerated course, *German 22*, for students who show unusual ability in *German 10*. After completion of *German 22*, these students enter *German 40* and receive four years of credit after three years of study.

- 0 First-Level German
- (300) Five prepared class periods. The beginning course seeks to develop aural comprehension and oral expression, as well as a foundation in the basic grammar. The basic patterns of the language are practiced by repetition and variation. Text: Schulz-Griesbach, *Deutsche Sprachlehre für Amerikaner*.
- 0 German
- (310) Five prepared class periods. Open to Seniors, and to Uppers with permission. A year-long accelerated introductory course covering the work of the first two levels of the normal sequence.
- 0 Second-Level German
- (320) Five prepared class periods. The systematic study of basic patterns and grammar is continued with Schulz-Griesbach, *Deutsche Sprachlehre für Amerikaner*. Both close and comprehensive reading of modern German prose is practiced extensively. Elementary writing is introduced at this level. Some of the books read include Kessler, *Kurze Geschichten*; Schnitzler, *Der blinde Geronimo*; Remarque, *Drei Kameraden*; Bischofsel, *Kindergeschichten*.
- 0 Accelerated Second-Level German
- (330) Five prepared class periods. An accelerated course for qualified students, covering material of both *German 20* and *German 30*. Successful completion enables a student to enter *German 40*.
- 0 Third-Level German Literature
- (340) Four prepared class periods. Throughout the year grammar is reviewed in Sparks and Vail, *German in Review*. Some of the books read include Brecht, *Kalendergeschichten*; Dürrenmatt, *Der Richter und Sein Henker*; Aichinger, *Der Gefesselte und andere Kurzgeschichten*; Dürrenmatt, *Der Besuch der alten Dame*; Odön von Horvath, *Jugend ohne Gott*. Emphasis is placed on reading comprehension, vocabulary building, and oral work.

**40—123 Fourth-Level German Literature**

- (4351) Five prepared class periods. Introduction to German Literature. This course  
 (4352) prepares for the Advanced Placement Examination. Through detailed stylistic  
 (4353) analysis of a number of outstanding works, the students gain an acquaintance  
 with some of the major authors and most significant trends in German literature  
 since 1750. The works read include Brecht, *Der kaukasische Kreidekreis*,  
 Büchner, *Woyzeck*, Dürrenmatt, *Die Physiker*, Hauptmann, *Bahnwärter Thiel*,  
 Hesse, *Siddharta*, Kafka, *Die Verwandlung*, Mann, *Tonio Kröger*, and selected  
 poems from Goethe to the present.

**50—123 Fifth-Level German**

- (4361) Four prepared class periods. Contents vary according to the needs and  
 (4362) interests of the students.  
 (4363)

**60—123 Sixth-Level German**

- (4371) Four prepared class periods. Contents vary according to the needs and  
 (4372) interests of the students.  
 (4373)

**Senior Project**

- (9001) Under the guidance of a member of the German Department, a Senior has the  
 (9002) opportunity to do special work in German. It may include supervised teaching  
 (9003) of an elementary class, or work of his own choice in a special field.

## Italian

**10-20—0 Italian**

- (4400) Five prepared class periods. Open to Seniors. Open to Uppers by permission  
 of the instructor. A year-long accelerated introductory course covering two  
 years in one. Because students come with a background in other languages,  
 progress in speaking and reading is very rapid. A basic college text is sup-  
 plemented by selected readings, radio recordings, and libretti and music of  
 Italian opera. (Mr. Pascucci)

## Russian

The Russian Department offers a course of five years of study. An accelerated sequence enables able students to complete four years' work in three, and receive four years of credit. There is also an accelerated course for Uppers and Seniors.

Since Russian is, indeed, more "foreign" to native speakers of English than the traditional languages of Western Europe, the complete exclusion of English during the first term is time consuming and impractical. However, it is the policy of the Russian Department to attain the exclusive use of Russian in the classroom, instructional and conversational, no later than mid-way through the first year's study, and from the first meeting of the accelerated sequence (12). The entire program develops skill in speaking, aural comprehension, reading and writing.



- 0—0 **Russian**  
 (500) Five prepared class periods. Open to Juniors, Lower Middlers, and Upper Middlers. A year-long elementary course in speaking, listening, reading, and writing. Texts: Kostomarov, *Russian for Everybody*; reference materials.
- 23 **Russian (T2)** (a two-term commitment)  
 (515) Five prepared class periods. Especially competent students will be recommended for this accelerated course at the conclusion of one trimester of *Russian 10*. Successful completion of two terms of 12 enables one to enter 22. Texts are essentially the same as those used in *Russian 10* and *Russian 20*.
- 0 **Russian**  
 (520) Five prepared class periods. Open to Seniors. Open to Uppers by permission of the instructor. A year-long accelerated introductory course covering two years in one. Texts: von Gronicka, *Essentials of Russian*; *Graded Russian Readers* (Heath).
- 0 **Russian**  
 (530) Five prepared class periods. Completion of the elementary course with continued emphasis on active use. Texts: Kostomarov, *Russian for Everybody*; Bash, *Uchebnik Russkovo Iazyka*, Part 1; reference materials, and selected reading materials.
- 0 **Russian**  
 (40) Five prepared class periods. A year-long accelerated course open to students who have successfully completed *Russian 12* and to other qualified students with departmental permission. Successful completion enables students to advance to fourth-level courses. Texts and reading materials are essentially those of *Russian 20* and *Russian 30*.
- 0 **Russian**  
 (50) Four prepared class periods. Reading, conversation, and writing, based on a variety of authors. Text: S. Khavronina, *Russian as We Speak It* (Progress-Moscow); Bash, *Uchebnik Russkovo Iazyka*, Part 2, and selected Soviet literary materials.
- 123 **Russian**  
 (61) Four prepared class periods. Further work in reading, conversation, and writing. Texts: *A-LM Russian Advanced Level*, 2nd Edition; L. Muravyova, *Verbs of Motion in Russian* (Progress-Moscow); and selected literary materials.
- 123 **Russian**  
 (71) Four prepared class periods. Fall Term, RUSSIAN LITERATURE, readings from authors of Pre-revolutionary Russia.  
 (72) Winter Term, THE SOVIET PRESS. A view of the Soviet system as reflected in the media. The text is a subscription to a major Soviet newspaper.  
 (73) Spring Term, SOVIET PROTEST LITERATURE. A view of protest in the Soviet Union as seen through the works of Zamyatin, Solzhenitsyn, Tertz, Daniel, Yevtushenko, Okudzhava, Bulgakov, and others. Authors vary according to needs and interests of the students.
- Senior Project**  
 (501) Under the guidance of a member of the Russian Department, a Senior has the opportunity to do special work in Russian. It may include supervised teaching of an elementary class or work of his own choice in a special field.  
 (502)  
 (503)

*For courses in translation, see the Interdisciplinary section.*

## Spanish

The Spanish Department offers a six-year course of study. Students who demonstrate unusual ability and interest during the first year are invited to join an accelerated sequence which enables them to complete four years of work in three and thus receive four years of credit. The language of the classroom is Spanish, and extensive use is made of the Language Laboratory. Students learn to understand, speak, read, and write the language, and also are given a comprehensive introduction to the literature and culture of Spain and Hispanic America.

### 10—0 Spanish

(4600) Five prepared class periods. Making use of the audio-lingual approach the course stresses understanding and speaking. A minimum of English is used in the classroom. The basic texts are: *Español: A Descubirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill) and *Cuaderno de Ejercicios*, by Schmitt, Woodford and Marshall (McGraw-Hill). They are supplemented by language laboratory practice and other audio-visual materials. Exercises in reading and writing are introduced after the student has acquired confidence in oral expression.

### 10A—0 Spanish

(4610) Five prepared class periods. This course begins Winter Term. Designed for students who may profit from a more gradual pace in foreign language study, the course aims to enable the students to better assimilate the structure of the language and to acquire acceptable patterns of speech. Eligibility for this course is determined by an agreement reached by the student and the foreign language teacher in consultation with the chairman of the foreign language department involved. Employing a variety of materials, the syllabus for the course will closely follow that of *Spanish 10*.

### 10-20—0 Spanish

(4620) Five prepared class periods. Open to Seniors, and to Upper Middlers by permission of the instructor. A year-long accelerated introductory course covering two years in one. The basic texts are: *Español en Español*, by A.A. Graupera and F. Pace (Van Nostrand Reinhold Co.); *Cuentos y Microcuentos*, by Guillermo Castillo-Feliú (Holt, Rinehart & Winston); and selected poems and songs.

### 15—0 Spanish

(4630) Five prepared class periods. For new students who have been exposed to Spanish but who are not fully qualified for *Spanish 20*. The course stresses the oral use of the language. Outstanding performance in this course qualifies the student for *Spanish 22* or *Spanish 30*. Text: *Español. A Descubirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill) and selected readings. They are supplemented by language laboratory practice and other audio-visual materials.

### 20—0 Spanish

(4640) Five prepared class periods. A continuation course that emphasizes speaking, reading, simple theme writing, and vocabulary building, including the use of synonyms and antonyms. Oral fluency is stressed in accordance with the prin-

ciples of the audio-lingual method. The basic text is: *Español: A Sentirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill). Readings beyond the basic text are selected to meet the needs of each class.

—0 **Spanish**

- (50) Five prepared class periods. Open to students who have completed *Spanish 10* with honors and continue to earn honors during the fall term of this course. It covers the equivalent of the material of *Spanish 20* and *30*. Successful completion enables a student to enter *Spanish 40* or *42*. The basic texts are: *Adelante*, by Eduardo Neale-Silva, Robert L. Nicholas (Scott-Foresman); *Olvida Los Tambores*, by Diosdado and Rubio (Independent School Press); *Cuentos y Microcuentos*, by Guillermo Castillo-Feliú (Holt, Rinehart & Winston); and selected readings. In Spring Term students occasionally read and stage a one-act play in Spanish.

—0 **Spanish Language Review**

- (60) Four prepared class periods. For students who have successfully completed *Spanish 20*, but have need of further reinforcement in basic language structures. The goals of the course are achieved through the use of an intermediate grammar text, and readings which are selected according to the needs of the students.

123 **Aspectos de la cultura y civilización del Mundo Hispánico**

- (71) Four prepared class periods. An intermediate course which continues to  
(72) develop oral and aural skills, as well as facility in written composition through  
(73) a social-studies approach to the culture and civilization of the Hispanic world. In the previous courses, the student must have shown a strong ability for self-expression and an interest in historical and cultural themes.

123 **Spanish**

- (81) Four prepared class periods. An intermediate course which continues to  
(82) develop oral and aural skills, as well as facility in written expression. Class  
(83) discussion is based on representative works of literature to be found in the Spanish speaking world.

—2 **Winter Term in Mexico**

- (92) Students enrolled in a Spanish course at the 22 level or above may elect to spend the Winter Trimester in Mexico. Interested students should see their Academic Advisor to be sure that their other courses and their diploma requirements will permit them to be off campus for that trimester. Final approval for participation in the program will be made by the Dean of the Academy. Students intending to enroll in this course will do special research during the Fall Trimester under the direction of Mr. Couch and other members of the department.

123 **Spanish**

- (01) Four prepared class periods. The purpose of the course is to further the student's interest in the Hispanic world through the study of its history and literature.  
(02) Students showing marked ability will be eligible to take the A.P. examination in the Spanish language. Texts used in the past have been: *Tesoro Hispánico*, ed. Lado et al. (McGraw-Hill); *El Burlador de Sevilla*, by Tirso de Molina (Taurus Ediciones); *Doña Bárbara*, by Rómulo Gallegos (Fondo de Cultura Económica); *Repaso de Gramática*, by Soto (Harcourt, Brace, Jovanovich).

**42—0 Spanish**

- (4710) Four prepared class periods. The course presupposes an extensive knowledge of grammar and vocabulary and a reasonable fluency in conversation. Constant use of the Spanish language in classroom discussions and in written assignments is required. Particularly able students may take the Advanced Placement Examination in Spanish Literature if they so desire. Texts: Representative works of Pérez Galdós, Unamuno, F. García Lorca, J.L. Borges, Pablo Neruda, and supplementary titles chosen to support the study of these major authors.

**52—0 Spanish**

- (4720) Four prepared class periods. The course is open to students who have the equivalent of *Spanish 40 or 42*, or with the permission of the instructor. This course prepares the student for the Advanced Placement Examination in Spanish Literature or Language. The course is an in-depth study of two significant authors each term. In the past the following texts have been used: *Cien años de soledad*, LaMalahora, by García Márquez (Editorial Sudamericana, Buenos Aires); *Historia universal de la infamia*, by Borges (EMECE, Argentina); *En torno al poema*, ed. García Montoro and S.A. Rigol (Harcourt, Brace, World, Inc.); *Tres novelas ejemplares, y un prólogo*, by Unamuno (Austral); *Antología Esencial*, by Pablo Neruda (Losada); *Nazarín*, by Pérez Galdós; *Cinco Maestros*, by Coleman (Harcourt, Brace and World, Inc.); *Fulgor y Muerte de Joaquín Mureta*, by Pablo Neruda.

**60—123 Spanish**

- (4731) Four prepared class periods. Contents vary according to the needs and interests of the student.  
(4732)  
(4733)

**Senior Project**

- (9001) Seniors who are taking advanced Spanish courses are eligible to do apprentice teaching in beginners classes during either the Winter or Spring Term under the guidance of a faculty member. Seniors may also undertake projects of independent study in Spanish under the direction of a faculty advisor.  
(9002)  
(9003)

*See also Latin American Studies (History 409) listed under History and the Social Sciences.*

## Music

The diploma requirement in Music for entering Juniors and Lower Middlers is one trimester of Music, which is satisfied by *The Nature of Music (Music 20)*. This course is also a prerequisite for courses in the History and Appreciation category, but is not a prerequisite for the Applied category. Entering Upper Middlers must take a trimester course in Music or Art at the Academy; *Music 20* or its equivalent. Entering Seniors need not take a Music course. Exemption from *Music 20* as a prerequisite is granted on the basis of an exam and/or by permission of the Department Chairman. However, there is no exemption from the Music diploma requirement.



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0-1 **Beginning Instruments**

- 101) Three prepared class periods. Open to Juniors, Lower Middlers, and Upper  
 0-2 Middlers. Each section of instruments meets three times a week. On non-class  
 102) days individual practice is required. Each section is taught separately without  
 0-3 mixing woodwinds, brass, or strings. After completion of the course, a student  
 103) should be able to progress to individual private instruction. Instruments  
 taught: flute, clarinet, trumpet, trombone, tuba, and orchestral strings.  
 Limited enrollment.

A fee of \$10 per term is charged for rental of school-owned instruments.

-123 **Recorder Ensemble**

- 111) Meeting four times a week, with outside preparation. Prerequisite: *The Nature*  
 112) *of Music (Music 20)*, or permission of the instructor. Open to all classes.  
 113) This course is designed for the continuation of recorder skills developed in  
*Music 20*.

-123 **Brass Ensemble**

- 121) Meeting three times a week, with outside preparation. Open to all classes.  
 122) Open to qualified intermediate or advanced players by permission of the  
 123) instructor. The group has an opportunity to perform in Chapel and in other  
 concerts. The ensemble is made into different types of groups, such as trios,  
 quartets, quintets, and double brass choirs, to perform Renaissance, Baroque,  
 and contemporary brass literature.

-123 **Woodwind Ensemble**

- 131) Meeting three times a week, with outside preparation. Open to all classes.  
 132) Open to qualified intermediate or advanced players by permission of the  
 133) instructor. The ensemble is organized to allow a unique and comprehensive  
 experience in the study and performance of chamber music repertory, in  
 varied sizes of ensembles. Playing chamber music is an essential part in the  
 development of the woodwind student.

-123 **String Ensemble**

- 141) Meeting three times a week, with outside preparation. Open to all classes.  
 142) Open to qualified intermediate or advanced players by permission of the  
 143) instructor. These students find a wealth of fine music written for various com-  
 binations of instruments, ranging from the relatively easy to the very difficult.  
 Over the centuries composers have considered the strings a favored group.  
 Chamber music is a particularly rewarding experience and is valuable training  
 for all string students.

-123 **Fidelio Society**

- 151) Pass/Fail. Three prepared periods. Open to all classes. This small group of  
 152) mixed voices is selected from the *Chorus (Music 17)*. It performs on numerous  
 153) occasions throughout the year both on *Chorus* programs and on its own. Its  
 repertoire includes music of all types, early and modern, sacred and secular.  
 Membership is by audition and is conditional upon good standing in the  
*Chorus*.

-123 **Band**

- 161) Two double periods. Open to all qualified students. Tryouts are held any  
 162) time before the beginning of a term to test the student's ability and to arrange  
 163) for seating. Volunteers from all classes who are not enrolled for credit are  
 urged to join, on an extra-curricular basis. There are some school-owned  
 instruments available for student use. All types of music for wind ensemble are  
 rehearsed. It includes marches as well as classical, popular, and show music.  
 Much sight reading is done, and at least one public concert per term is given.

**17—123 Chorus**

- (6171) Two double periods. Open to all qualified students. The *Chorus* is the Academy's major singing group, comprised of mixed voices, and performs a variety
- (6172) of choral works, both sacred and secular. No previous choral experience is
- (6173) necessary; just a desire to work hard and enjoy a unique choral experience.

**18—123 Chamber Orchestra**

- (6181) Two double periods. Open to all classes. Most of the music played is for
- (6182) string orchestra; the best winds in the school are invited to join for larger
- (6183) works. One concert a trimester is regularly scheduled and the orchestra also plays at least once a trimester in the Sunday Chapel service. The membership includes several students from the community who want orchestral experience that is not available in their own schools, and several members of the faculty. While *Chamber Orchestra* may be elected as a credit-bearing course, it is also an activity in which all are invited to participate.

**19—123 Private Instrumental and Vocal Lessons**

- (6191) Weekly instruction in keyboard, orchestral, and band instruments, in classical
- (6192) guitar, or in voice. For private instruction, covering piano, organ, voice, classical guitar, orchestral and band instruments, there is a separate charge of
- (6193) \$100. per term for half-hour instruction or \$160. per term for full-period (50 min.) lessons and a nominal fee for the use of practice pianos and organs. A fee of \$15 per term is charged for private rental of school-owned instruments.

**20—1 The Nature of Music**

- (6201) Five prepared class periods. This course is designed to give a general back-
- 20—2 ground in the history, theory, and practical aspects of music. Music from its
- (6202) earliest sources to the present is examined. Also, the role of music and the arts
- 20—3 in each of its cultural stages is studied. Students receive some first hand experi-
- (6203) ence with musical instruments. No previous experience in music is required.

## History and Appreciation

The following sequence of courses in the history and literature of music is team-taught by members of the department. The sequence takes one and two-thirds years to complete. Each course is term-contained.

*The Nature of Music* (Music 20) is a prerequisite for all courses in this section.

**22—1 Medieval and Renaissance Music (to 1600)**

- (6221) Four prepared class periods. Open to all classes. This course surveys what is commonly called Early Music, from the earliest known chant to the fully developed Renaissance motet and madrigal. Much of the music from this period was written "for the glory of God." But the secular side of things is considered, too, especially the rise of instrumental music (for harpsichord, recorder, etc.) and the madrigal, with its texts of love, nature, and humor.

**23—2 Baroque Music (1600–1750)**

- (6232) Four prepared class periods. Open to all classes. This course surveys music from the first opera to the late works of Bach and Handel. The grand, dramatic style known as Baroque is seen in its most lavish form, opera, in choral masterpieces such as the *Messiah*, in sacred music such as Bach's organ works,

and in instrumental music such as the Brandenburg Concertos. The settings for this music, from the relatively humble churches of Bach's Leipzig to the magnificent Palace of Versailles, are considered.

### 1-3 Classical Music (1750-1820)

243) Four prepared class periods. Open to all classes. In this relatively short period grew and flourished what is considered the Classical style of Western music, and with it came the newly-created symphony. Haydn, Mozart, Beethoven, and others wrote in this new form as well as composing concertos, sonatas, string quartets, and some of the older forms, such as opera and religious music. The historical backdrop to this music—the Enlightenment, the Revolution (American and French), and the Napoleonic Era—is also considered.

### 5-1 Romantic Music (1820-1900) (Not offered in 1979-80)

Four prepared class periods. Open to all classes. The Romantic period is an era of great social, economic, and political change. From the later works of Beethoven through the works of Debussy, we trace the development and change of the "classical" structures. Schubert, Schumann, Mendelssohn, Brahms, Chopin, Liszt, Berlioz, Wagner, Mahler and Strauss are some of the composers that are examined.

### 5-2 Twentieth Century Music (1900-Present) (Not offered in 1979-80)

Four prepared class periods. Open to all classes. The twentieth century is a period of abstraction, and reaction, in art and music. New rhythmic and harmonic languages were developed and used. This course traces the development of the twentieth century style through the works of Debussy, Ravel, Scott Joplin, Stravinsky, Bartok, Ives, Schonberg, Partch, and other major figures in the twentieth century music world.

### -123 Independent Study in the History and Literature of Music

271) Four prepared class periods. Open to Upper Middlers and Seniors. A student  
272) who has taken at least one of the other courses in this sequence may, with the  
273) permission of the instructor, pursue an independent course of study in either a particular type of music or a particular period of music. This should be related to the period or periods covered in the student's previous course work in this sequence.

### 3-1 Jazz

281) Four prepared class periods. Open to Upper Middlers and Seniors. A study of  
3-2 the history of classic jazz, dating back to its roots in Africa, its development  
282) in New Orleans, its spreading to New York and Chicago, and its influence on  
3-3 music today. A survey of ragtime, blues, Dixieland, fox-trot, on through the  
283) big band era of the thirties, concluding with the jazz rock of today. A study of the influence and contributions of the major personalities such as W.C. Handy, Jelly Roll Morton, Louis Armstrong, Basie, Whiteman, Gershwin and the rest of the greats.

### 9-1 Popular Music in America

291) Four prepared class periods. Open to all classes. A course investigating popular music and its significance in American culture. A variety of styles and  
9-2 genres will be studied, including the American popular song, rhythm and  
292) blues, music for television, music for the film, country music, Rock 'n' Roll,  
9-3 and Hard Rock.  
293)

## Theory

- 32—123    Orchestration and Conducting**  
 (6321) Hours to be arranged. Open to Upper Middlers and Seniors. A comprehensive  
 (6322) study of orchestral instruments and their use in this organization. This course  
 (6323) is designed to teach arranging for each instrument. Also, basic conducting  
 skills are covered.
- 33—1    Theory of Music I**  
 (6331) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and  
 Seniors. This course offers an introduction to harmonic progression, triads,  
 modes, rhythmic coordination with dictation. Some original work is also  
 expected.
- 34—2    Theory of Music II**  
 (6342) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and  
 Seniors. Prerequisite: *Theory of Music I* or permission of the instructor. This  
 course deals with harmonic progressions, modulations, figure bass, and an  
 introduction to counterpoint and harmonic analysis.
- 35—3    Theory of Music III**  
 (6353) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and  
 Seniors. Prerequisite: *Theory of Music II* or permission of the instructor. This  
 course includes advance figure bass, more complex chords, and a brief intro-  
 duction to nineteenth and twentieth century techniques.
- 36—1    Electronic Music**  
 (6361) Four prepared class periods. Prerequisite: *The Nature of Music (Music 20)* or  
 36—2 permission of the Department Chairman. A course for the benefit of those  
 (6362) who seek to expand their domains of creativity by understanding and utilizing  
 36—3 the conceptual approaches inherent in electronic music synthesizers and related  
 (6363) equipment. Using a practical approach, the course begins with the care and  
 feeding of the tape recorder and proceeds to the functioning and operation of  
 electronic music modules. A lab fee of \$15.00 is charged for the use of the syn-  
 thesizer.
- 40—123    Advanced Techniques in Electronic Music**  
 (6401) Four prepared class periods. Prerequisite: *Electronic Music (Music 36)*. A  
 (6402) course designed for the continuation of the skills and techniques developed in  
 (6403) *Music 36*. A lab fee of \$15.00 is charged for the use of the synthesizer.

*See also French Music in French in the Interdisciplinary section.*

## Performing Arts: Theatre and Dance

All courses are electives, open to Seniors, Uppers, and Lower, but to Juniors only with permission of the instructor, unless otherwise noted. Courses in theatre are designed for students who wish formal exploration of the elements of stage work and a supplement to, (or substitute for) extracurricular work in productions. A variety of experiences is



available: some courses result in performance; some courses study theory; some do both. Theatre students are encouraged, though not required, to supplement their classwork by participating in any of the numerous productions mounted each year, or they might be invited to join the Andover Touring Company, which for several years has become part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life*, *A Thurber Carnival*, *Godspell*, and *The Contrast*.

## tre Courses

### —1 Introduction to Theatre

- 501) Four class periods. Open to Juniors and Lower Middlers. Using both classical and modern scripts to provide a range of dramatic experiences, the class  
 —2 studies plays in depth and detail to see how they might proceed from page to stage. Beginning with script analysis and ending with the staging of scenes, the course examines the components of production, especially acting, directing, design, and lighting, to learn how the play moves from the script to full realization as a production. The course is intended for students with limited experience in educational theatre, introducing them to areas of theatre which might be studied in depth in subsequent courses.

### —1 Introduction to Acting

- 511) Four class periods. Open to all classes. This course is designed for students with little or no acting experience. By doing exercises in movement and voice  
 —2 production, reading, improvisation, and scenes from Shakespeare, modern  
 512) plays, and musical comedy, a student who is curious about the theatre may  
 —3 determine whether he or she has ability or interest in acting, while learning  
 513) something of the process of characterization, the major responsibility of the actor. The emphasis is on the variety of acting experiences rather than on a polished final product. Text: Hagen, *Respect for Acting*.

### —1 Public Speaking

- 521) Four class periods. Open to all classes. The course has a dual objective: to  
 —2 learn how to speak easily in front of others, and to learn how to speak English  
 522) well. Students give prepared and extemporaneous speeches on a variety of  
 —3 topics while studying diction, pronunciation, projection, organization, and  
 523) other techniques of good speaking.

### —2 Acting Workshop

- 532) Four class periods. Prerequisite: *Theatre 21*, or some acting experience. Building upon the principles of acting introduced in *Theatre 21*, this intermediate  
 —3 acting course consists of detailed scene work and improvisation, exploring the  
 533) relationship of the actor to his audience and to his fellow actors and focusing on the creation of dramatic moments, both with and without scripts. The course considers various acting styles, both classical and contemporary, in an effort to guide the actor toward a greater understanding of his responsibility on stage: to see to what degree he can remove himself from himself while creating the most truthful characterization possible. Text: Sonia Moore, *The Stanislavski System*.

**24—3 Advanced Acting Workshop**

(6543) Four class periods. Prerequisite: *Theatre 20* or *21* or significant production experience. For serious, self-motivated students of acting who wish to study one play and one character in depth, this course might be taken in conjunction with the playing of a role in a musical or dramatic production.

**25—1 Directing Workshop**

(6551) Four class periods. Dedicated to the idea that the director's job is the most complex in theatre, the course is designed for students who have had some acting experience and who now wish to study the principles and techniques of directing. Class members experiment with manageable scenes; they examine books on the subject of directing and study various styles of direction, methods of scene interpretation, and types of drama from classical and contemporary periods. Emphasis is placed upon the director's responsibilities to his actors, his audience, and his playwright. Text: Cole and Chinoy, *Directors on Directing*

**26—123 Stagecraft**

(6561) Four class periods. Open to all classes. Through practical experience in designing, building, and lighting, for plays currently being produced, students learn the elements of stagecraft, including set construction, stage rigging, and the use of lighting instruments and gels. Text: Parker and Smith, *Scene Design and Stage Lighting*. For the Fall Trimester emphasis will be on set design; for the Winter, stagecraft; and for the Spring, lighting.

**27—23 Play Production**

(6572) Four class periods. By audition only. This course is oriented toward a performance at the end of the term of an acting and directing project, normally the production of a significant work by an important playwright. Recent choices have been *The Crucible*, *The Skin of Our Teeth*, *The Time of Your Life*, and *The Sea Gull*.

**28—1 Shakespearean Workshop**

(6581) Four class periods. Open to all classes. An intensive study of several plays by Shakespeare, with the major emphasis on the spoken word. Close attention is given to pronunciation, diction, rhythm, dynamics, and interpretation. Students read aloud, act, memorize, present, and record scenes and soliloquies. Anyone who plans to audition for the Shakespeare production might consider this course.

**29—2 Playwriting**

(6592) Four class periods. Each student is expected to write at least one one-act play in addition to certain exercises in monologue, dialogue, and scene setting. The class reads aloud from students' work-in-progress while studying the formal elements in plays by Sophocles, Shakespeare, Goldsmith, Ibsen, Williams, Miller, Beckett, and Ionesco, and selected literary criticism focused on drama.

**31—12 History of Theatre**

(6611) Four class periods. Beginning with the origin of theatre in ancient myth and ritual, the course traces theatre through Greek and Roman drama, the medieval mystery and morality plays, the Elizabethan Age (with a special focus on Shakespeare), the Restoration, the Eighteenth Century, and Victorian drama, up to the beginnings of modern drama in the early twentieth century. By discussing dramatic literature from each period, by seeing slides on theatre architecture, set design, acting styles, and production elements, and by par-

ticipating in staged readings from several of the periods, the student sees the trends and influences which have produced great drama in the past and which have allowed theatre to thrive in spite of severe obstacles throughout its history. The course is intended as background for anyone who participates in, reads, or attends plays. Playwrights: Aristophanes, Sophocles, Plautus, Jonson, Shakespeare, Marlowe, Congreve, Sheridan, Wycherley, Goldsmith, Ibsen, Shaw, Wilde. Text: Brockett, *The History of Theatre*.

See English 508 for a course in Modern Playwrights.

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## 123 Introduction to Dance

- (01) Four prepared class periods. A formal course in movement and composition
- (02) which introduces the serious student to the vocabulary and other elements of
- (03) dance through active participation. The emphasis is not ultimately on public performance, but on the process and the discipline of modern dance.

## Philosophy and Religious Studies

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundation of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered at a variety of levels. All courses are elective and involve four prepared class periods.

### 1-1 Biblical Narrative: The Personal Dimension (Not offered 1979-80)

Four prepared class periods. Open to Juniors, Lower and Upper Middlers, and Seniors. Adam and Eve, Cain and Abel, Abraham and Isaac, Jacob and Esau, Rachel and Leah, Joseph and his brothers, David, Solomon, Elijah, Esther—these and numerous other Biblical names are closely associated with our Western religious traditions. Many of these are prototypical religious figures, with a sense of the Divine as well as of personal mission. A few are rather the reverse, oblivious to the Divine dimension and opposers of the heroes and heroines. Yet all of them are distinct human personalities engaged in adventures and struggles, loves and rivalries, feelings of joy and of deep sorrow. It is this human dimension which, together with the mythic and personal meanings today, is the focus of this course. (Rabbi Gendler)

### 1-3 Introduction to Ethics: Discernment and Decision

- (13) Four prepared class periods. Open to Juniors and Lower Middlers. Rooted in concrete issues and experiences of everyday living this course provides an introduction to the skills of discernment. Drawing case studies from literary and topical sources, bioethics, law and education, the class will critically investigate the often unspoken presuppositions that give rise to moral decisions. (Dr. Avery)

**30—3 Introduction to Non-Western Religions**

(7303) Four prepared class periods. Open to Lower, Uppers, and Seniors. This course provides a brief introduction to four of the world's major religions: Islam, Hinduism, Buddhism, and Taoism. Huston Smith's classic, *The Religions of Man* is the text. Additional readings are drawn from basic religious texts of the traditions as well as from such literary treatments as those by Hesse. (Rabbi Gendler)

**31—1 Memory and Manuscript: the New Testament**

(7311) Four prepared class periods. Open to Lower and Upper Middlers and Seniors.

31—3 Sacred writings make present to a people those things they most need to remember. This course provides a critical introduction to the origin, purpose and interpretation of the writings of the New Testament. (Dr. Avery)

**32—2 Post-Biblical Jewish Thought: Responses to the Holocaust**

(7322) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. An exploration of the holocaust through diaries, memoirs, works of fiction, poetry, and later reflections on the phenomenon.

Questions to be dealt with will include: what was it like for the victims? What was it like for the Nazis? How could it have happened? What elements from Jewish, Christian, and secular tradition contributed to its possibility? What have been some of its effects on our own feelings about life and human beings? How have various Jewish, Christian, and secular thinkers responded to the challenge of this event?

By way of comparison and contrast, the atomic destruction of Hiroshima and Nagasaki and its significance for our age will also be discussed. (Rabbi Gendler)

**40—2 Understanding Religion: An Introduction**

(7402) Four prepared class periods. Open to Upper Middlers and Seniors and to

40—3 Lower Middlers with permission of Instructor. From Old Stone Age burial

(7403) artifacts to the presence of the Guru Mahariji in the Houston Astrodome, people have tried to make sense out of their existence through religion. What is a religion? What aspects of the human experience does it address? Is it a response to the needs of the individual or of society? Or is it a response to something beyond man? The phenomenon of religion will be examined from the point of view of the person, the community and the transcendent. (Dr. Avery and Ms. McCaslin)

**41—1 Views of Human Nature**

(7411) Four prepared class hours. Open to Upper Middlers and Seniors, and to Lower

41—2 Middlers with permission of Instructor. A critical examination of existentialism, psychology, biology, anthropology and transcendentalism in light of the answers they provide to the following questions: Does man have a characteristic nature? What are his basic needs, rights, obligations and values? Is man free? Is man responsible for his actions? Given an understanding of man, how should we structure society to satisfy his needs and take advantage of his potentials? Readings: Jean-Paul Sartre, *Existentialism is a Humanism*; Sigmund Freud, *Civilization and Its Discontents*; B.F. Skinner, *Beyond Freedom and Dignity* and *Walden Two*; Richard Leakey, *Origins*; Sam Keen, *Apology for Wonder*. (Mr. Hodgson)

**42—1 Bioethics**

(7421) Four prepared class periods. Open to Upper Middlers and Seniors. The growth

42—3 of the human sciences and their corresponding technologies has increased

(7423) human control over and thus responsibility for the development of mankind.



The course addresses particular issues of life and death, genetic engineering, behavior modification, human research and the allocation of medical resources. At the same time the underlying issue of the relationship between science and ethics is considered. (Dr. Avery)

### -1 Law and Morality

31) Four prepared class periods. Open to Upper Middlers and Seniors, and to  
 -3 Lower Middlers with permission of Instructor. A critical examination of an  
 33) intricate web of problems which arises out of the relationship between law and morality. Questions of concern include: Does society have the right to restrict the behavior of an individual? On what, if any, grounds are such restrictions justifiable? To what degree should society incorporate "popular" morality into law? Is an individual ever morally justified in breaking the law? If so, under what circumstances and in what fashion? Readings include selections from Plato, Hobbes, R.P. Wolff, Lord Patrick Devlin and Martin Luther King, Jr. Case studies on abortion, pornography, racial and sexual discrimination and civil disobedience. (Mr. Hodgson)

### -2 Nonviolence in Theory and Practice

12) Four prepared class periods. Open to Upper Middlers and Seniors. The militarily most destructive century in human history, our twentieth century, has also been one in which such men as Gandhi and Martin Luther King, Jr., have successfully applied nonviolence to conflict situations. What is the theory of this approach to human conflict? What are some of its psychological assumptions? What is its religious and human significance? By what means does it operate? What are its prospects for the age ahead? We shall use case histories, the testimonies of those directly involved in such struggles, films, critical and theoretical studies in trying to clarify and comprehend some of these elements of nonviolence. Readings include Joan Bondurant's *The Conquest of Violence* as well as writings of Gandhi and King. (Rabbi Gendler)

### -1 Ethics and Education (Not offered 1979-80)

Four prepared class periods. Open to Upper Middlers and Seniors. Education necessarily involves judgments of value and as a topic continues to arouse much moral fervor. This course examines the ethical presuppositions of some theories of education, considers some specific issues and in particular asks the question "What values, if any, should be taught?" The course provides an opportunity for the student to grow in awareness of and become more actively engaged in the value judgments that form his/her own educational experience. (Dr. Avery)

### -2 Proof and Persuasion

32) Four prepared class periods. Open to Upper Middlers and Seniors, and to  
 -3 Lower Middlers with permission of Instructor. A practical introduction to  
 33) informal logic and to the philosophical study of language. Some of the questions raised are: What is the difference between a good argument and a poor one? What are the common fallacies of thought? What are the limitations of logic? What is the meaning of "meaning" and the truth about "truth?" The course stresses the development of individual skills in argument and includes a critical examination of the patterns of thought one encounters every day in magazines, newspapers and on television. (Mr. Hodgson)

### -1 Moses, Socrates and Jesus: Three Personalities and Their Teachings

71) Four prepared class periods. Open to Upper Middlers and Seniors; to Lower Middlers with permission. An intra-departmental course. Moses, Socrates, and Jesus are three of the most influential figures in Western thought. Around each

has formed a religious or philosophical tradition, and their lives and teachings have affected millions through the centuries.

What would a fresh look at these figures reveal? What were the facts of their lives and teachings? How do the documents from their times portray them? What have these men meant to other generations? What issues of personal lifestyles and social values does each pose for us?

Through a combination of lectures, dialogue among the teachers, and small group discussions, these and other comparisons and contrasts of the historical personalities and their visions will be explored. (Dr. Avery, Rabbi Gendler, Mr. Hodgson)

## 50—2 Existentialism

(7502) Four prepared class periods. Open to Upper Middlers and Seniors. The term "existentialism" covers a broad range of attitudes and values that are joined together by an emphasis on human existence. The authors brought together in its name share a characteristic concern for the problems of meaning, identity and choice that confront men and women in everyday life. The lectures, discussions and readings are designed to help us locate and express these problems as they confront each of us in our own lives and to assist in understanding and resolving them by drawing on the experiences and insights of the major existentialist thinkers. Readings: Nikos Kazantzakis, *Zorba the Greek*, Friedrich Nietzsche, *The Genealogy of Morals*; Jean-Paul Sartre, *No Exit* and *Being and Nothingness*, Martin Heidegger, *What is Philosophy*; Søren Kierkegaard, *The Sickness unto Death*, Martin Buber, *I and Thou*. (Mr. Hodgson)

## 51—1 In Search of Justice: from Socrates to Marx

(7511) Four prepared class periods. Open to Upper Middlers and Seniors. God, emotion, logic, social necessity and economic laws have all been invoked as the final arbiter of justice. The class will examine the major answers to the problem developed by Plato, Aristotle, Kant, Mill, Marx and others. The course aims to assist critical awareness of the ultimate criteria of one's own evaluations and those of others so that she/he be better equipped to make her/his own contribution to the never-ending search for justice. (Dr. Avery)

## 52—1 Great Philosophers: Knowledge and Reality

(7521) Four prepared class periods. Open to Upper Middlers and Seniors. The great philosophers offer us a variety of serious and systematic attempts to answer a set of difficult questions that perennially face mankind: What is the good life? What are the sources of human experience? What is the relationship between my mind and my body? Does God exist? What is the relationship between reason and reality? This course critically evaluates the responses of Plato, Aristotle, Descartes, Hobbes, Berkeley, Hume, Kant and Mill in an attempt to show the continuing importance of both the questions and their answers. (Mr. Hodgson)

52—3

(7523)

# Physical Education

All Juniors and new Lower are required to elect one trimester of P.E. 10 in addition to their regular athletic commitment.

- 1 **Physical Education**  
 01) Pass/Fail. Limit of fifteen students per section. Five class periods per week.  
 —2 The program consists of four phases:  
 02) 1. Track—a run, jump, throw, self-developing program;  
 —3 2. Ropes—elementary gymnastics and climbing;  
 03) 3. Physical Fitness—an introduction to physical conditioning and weight training;  
 4. Drownproofing—a survival-technique swim course.  
 Two periods per week are spent on Drownproofing and three on the other three phases.

## Psychology

The Psychology Department seeks to offer students services and programs that may provide them with the knowledge and understanding to improve the quality of their lives both here at Andover and in the future. Its present curriculum supplements the informal programs offered through Graham House and the residential clusters. Currently we are working with other departments to plan courses to help students improve their understanding of the meaning of health in its broadest, most integrative sense.

- 2 **Human Relations**  
 7(2) Pass/Fail. Two double periods. For Uppers and Seniors. Limit of fifteen  
 —3 students per section. This is a course in Social Psychology. Its topic for study  
 7(3) is human behavior in small groups. Human beings do most of their living, working, and playing in small groups ranging in formality from family to classroom groups. The relationships among the members of these groups develop through similar stages and by common processes which determine to an important extent the effectiveness of the group in achieving its goals. These stages and processes are a response to two basic human needs: the need for belonging and community, on the one hand, and the need for separateness and individual identity, on the other.

The classroom group provides students with a laboratory in which to experience and observe group process. Students read articles in the professional literature and write papers on topics that reflect upon their learning. (Mrs. Kubler-Merrill and Dr. Roehrig)

- 3—2 **Human Sexuality**  
 7(2) Four prepared class periods. An interdisciplinary course for Uppers and  
 3—3 Seniors designed to help students understand the facts of their own sexuality  
 7(3) from the biological, social and psychological points of view. The format of the course is a combination of reading, lecture, discussion, writing and examination. In addition to the biological facts, topics to be covered include misconceptions and mythologies of sexual growth and development, important features of masculine and feminine psychology as they relate to sexual behavior, the relationships between attitudes and beliefs, and sexual conduct. (Mrs. Kubler-Merrill and Dr. Roehrig)

## Science

The diploma requirement in science is a year-long course in a laboratory science at the 20 level or higher. Juniors and Lower Middlers may take a three or four-year sequence of science courses which will provide a general cultural understanding of science and give a good background for the continuing study of science in college. Courses at the 40 level or higher involve work beyond the laboratory requirement in science. Courses at the 50 level are at the college level and prepare students for the Advanced Placement examinations. Students who do well in these examinations may be granted credit or advanced standing by the college they attend.

In general students are encouraged to take a variety of courses in physical and biological science, and not to specialize in a single branch of science. For students with special interests individual project work for credit is open to Seniors. Such projects are on a Pass/Fail basis and are arranged through the office of the Dean of the Academy.

The science courses numbered 10-19 are open to Juniors and Lower Middlers. Able Juniors and Lower Middlers may take upper level courses with the permission of the department chairman.

## Science

### Science 10-0 (8000) Introductory Physical Science (IPS)

Open to Juniors and Lower. Five class periods. A laboratory course in beginning physical science using an expanded version of a syllabus called "Introductory Physical Science." Students explore the nature of matter in its solid, liquid, and gaseous forms. Analyses of mixtures and compounds, and a study of radioactivity lead to an atomic concept of matter. Many experiments are quantitative and require careful recording of data, drawing of graphs, and calculations of results. (Mrs. Whyte)

### Science 11-3 (8013) Introduction to Biological Science

Open to Juniors and Lower. Four prepared periods per week. This course is designed for students who have no background in chemistry and are planning to take *Biology 30* to meet the laboratory science requirement. Topics such as acid-base chemistry, bonding, shapes of molecules, the mole concept, and elementary organic chemistry will be covered. There will be laboratory work. (Dr. Minné)

### Science 12-2 (8022) Introduction to the Geosciences

Open to Juniors and Lower. Four prepared class periods. Laboratory work is accomplished during class periods and involves study of satellite and aerial photos, slides, maps and various specimens. Typical areas of study include volcanoes, fossils, earth resources, oceans, gemstones, crystals and earthquakes. (Dr. Wilson)

### Science 13-3 (8033) Astronomy—The Solar System

Open to Juniors and Lower. Not open to students in *Physics 30*. Four prepared class periods. The 1970's and 1980's will certainly be called the era of planetary exploration. This course will study each planet in detail and then evaluate the theories for the formation of our solar system. Other topics for discussion will include the chemical evolution of life on earth, the future of the



space program, and the observation of the night sky. Special sessions will be scheduled in the Phillips Academy observatory. This course is particularly recommended for those students who might be interested in taking *Astronomy 30* or *35* later. (Mr. Sarton)

#### Introduction to Energy

Open to Juniors and Lower. Four prepared class periods. This course concentrates on hydroelectric, fossil, nuclear and solar energy, but there is some study of geothermal, wind, batteries and house construction. Certain environmental problems will be included. Some laboratory work is accomplished during various class periods. (Dr. Wilson)

#### Oceanography

Four prepared class periods. This is an introductory science course designed primarily for Juniors and Lower who have not taken *Biology 30* or its equivalent. The 70% of our earth's surface comprising the oceans is examined from a number of physical, chemical, and biological perspectives. Accordingly, we investigate aspects of sea water chemistry, mechanisms of wave propagation and current generation, and interactions among the thousands of living organisms found in or near the sea. Films and slides complement the classroom portion of the course. (Mr. Willand)

#### Ecology

Four prepared class periods. Open to Juniors and Lower Middlers. The course is designed to introduce students to the basic concepts of ecology. The material offered explores the meaning of interdependence and interrelationships within environment; population dynamics; trophic levels and energy; adaptation; succession; and the impact of man upon his environment and some of the problems caused by his use and abuse of basic resources. Class material is coordinated with and reinforced by laboratory studies of population growth, computer programs to study environmental problems and pertinent field trips. One of the major objectives of the course is to develop within the student an understanding of and sensitivity to the balance and beauty of nature. (Mrs. Hawkes)

#### Introduction to Zoology

Three prepared classes and one unprepared double laboratory period per week. This is a one-term course designed for Juniors and Lower who have not taken *Biology 30* or its equivalent. A study will be made of the similarities and differences of the major animal divisions from the most primitive invertebrates to the most complex vertebrates. Areas of concentration will include the basic systems of each phylum (i.e., digestion and reproduction), as well as the ecological role and the evolutionary development of the organism. Lab periods will be used to develop techniques of dissection while studying the anatomy of animals from selected phyla.

#### Science Honors for Juniors

Four prepared class periods. Corequisite: Registration in *Math 19* or *Math 20*. This is an honors course for talented Juniors with a strong interest and background in science and mathematics. Students entering this course should have mastered a year of algebra as it is used profusely in solving word problems. There is laboratory work. Successful completion of *Science 19* prepares students for *Physics 30*. The text is *Physics* from the Physical Science Study Committee. (Mr. Apgar, Mr. Sarton)

**Science Energy and the Future**

**30—2** Five prepared class periods. Open to Uppers and Seniors who have either completed or are completing the science requirement. This course is taught by faculty in the Science Division. Its purpose is to study energy in a modern biological, geological, physical-chemical and social context. While several fundamental aspects of science and energy are inspected, time is devoted to issues that transcend mere technology. The course of study considers fossil fuels, nuclear energy, solar, geothermal, wind, tidal, and other sources of energy. biological and ecological aspects of energy, public health, risks, costs, governmental policies and programs. The intent is that through the unifying theme of Energy, students can grasp a broader understanding of their world, as well as perhaps a further glimpse into the present and future of man. (Mr. Cone, Mr. Sarton, and Dr. Wilson)

**Science Applied Human Biology**

**35—3** An interdisciplinary course for Upper Middlers who have had *Biology 30* or its equivalent. It is a unique course led primarily by a group of veteran Seniors who were enrolled in it the previous year. Thus, it is self-perpetuating. Participating Seniors may apply for Independent Study credit.

Topics covered will vary from year to year, depending upon current interests, but are related to practical areas of human biology such as human sexuality, drug use and abuse, sports psychology, nutrition, emergency first aid, birth control, and sports medicine. Informed students, faculty and staff members, and individuals from outside the community are invited to present lectures and/or lead seminars.

The course is coordinated by a member of the Biology Department. Enrollment is limited and requires written permission of the Coordinator.

**Biology**

A student entering Phillips Academy as a Lower, Upper, or Senior who wishes to receive credit for and exemption from the basic year-long course, *Biology 30*, on the strength of a course taken at the 9th grade level at another school may do so upon passing a validation test to be administered after the student arrives at Andover.

**30—0 Biology**

**(8100)** Three prepared periods and one double, unprepared laboratory period. The course stresses the unity of life, rather than the diversity, by emphasizing the function common to all living things. It covers, in plants, animals, and micro-organisms the fundamental principles of metabolism, including nutrition, gas exchange, transport, excretion, and homeostasis; responsiveness and coordination; reproduction, genetics, and development; the principles and history of evolution; and the principles of ecology.

The laboratory work includes training in the use of the compound and stereoscopic microscopes and other laboratory equipment. It requires careful observation, mastery of techniques, and accurate recording of results. Several laboratory periods are set aside for field trips featuring ecology and conservation. There is opportunity for work on individual laboratory projects.

**44—1 Biology—Human Physiology**

**(8121)** Prerequisite: *Biology 30* or its equivalent. Three prepared periods and one

**44—3** unprepared double laboratory period. Text: *The Mechanisms of Body Functions*, by Vander, Sherman, & Luciano. An in-depth consideration of how the body's coordinated functions result from precisely controlled and integrated

activities of specialized cells grouped together in tissues and organs. Systems to be studied include: endocrine, nervous, muscular, cardiovascular and respiratory. Laboratory work will include physiological investigations in each of the above systems and a detailed anatomical study of the cat. A fully-documented research paper is required. (Mr. Bastian, Mrs. Hawkes)

## 4-2 Biology—Human Physiology

3(2) Prerequisite: *Biology 30* or its equivalent. (Note: *Biology 44-1* is NOT a prerequisite for this course.) The format of the course is the same as for *Biology 44-1*. Topics to be considered include: excretory, digestive and reproductive systems; regulation of organic metabolism and energy balance; defense mechanisms of the body; processing of sensory information. The laboratory work will include: basic techniques in urinalysis and blood work; cardio-pulmonary resuscitation certification; basic neurological response testing; a guided tour of Mass. General Hospital. A fully-documented research paper is required. (Mr. Bastian)

## 23 Biology (T2) (a two-term commitment)

5(5) Prerequisites: One year of biology and one year of chemistry or physics; either of the latter two courses may be taken concurrently. Preference given to Seniors. Four prepared class periods and one double, unprepared laboratory period. In addition to a review of basic biology, new material is presented as the course progresses. The combination of review and new work prepares students for the Advanced Placement Examination of the College Entrance Examination Board.

## istry

## 5-0 Elementary Introductory Chemistry

1(0) Prerequisite: Completion of *Mathematics 10* or the equivalent. For Lower Middlers and Upper Middlers. Three prepared periods and one unprepared, double laboratory period. The course includes a systematic study of matter and the changes it undergoes. Emphasis is placed on the reasoning involved in the development of modern theory and general concepts rather than memorization of descriptive chemistry. Laboratory work is closely related to topics covered in recitation.

## 0-0 Introductory Chemistry

1(0) Prerequisite: Completion of *Mathematics 20* or the equivalent. Three prepared periods and one unprepared, double laboratory period. The course is designed for students with more maturity and mathematical background than those taking *Chemistry 25*. As in that course, the modern theoretical framework of chemistry is emphasized, and the laboratory work is closely related to topics covered in recitation. These topics are treated in greater depth and with more emphasis on quantitative rather than qualitative answers.

## 2-2 Research in Chemistry

1(2) Prerequisite: *Chemistry 25* or *Chemistry 30* completed with distinction, and permission of the instructor. One prepared period and three unprepared, double laboratory periods, or the equivalent. Each student selects a research project in consultation with the instructor and then carries out the necessary work. (Dr. Minné)

**43—3 Elementary Organic Chemistry**

(8243) Prerequisite: Completion of either *Chemistry 25* or *30*. Three prepared class periods, one unprepared, double laboratory period. Students interested in medical or biological fields or in additional chemistry must generally wait until the college sophomore year before studying organic chemistry, the chemistry of carbon compounds. This course is a prior introduction to this critically important and fascinating subject.

Organic chemistry is largely non-mathematical and descriptive in nature. Students will use a condensed "mini-course" text, learn many of the laboratory techniques unique to organic chemistry, make use of three-dimensional plastic molecular models, and gain a sound background in nomenclature, functional groups, bonding, simple mechanisms, typical reactions, and infra-red spectra (Dr. Wilson).

**44—1 Stereochemistry**

(8251) Prerequisite: Completion of *Chemistry 25* or the equivalent. Three prepared periods and two unprepared, double laboratory periods. For students who wish to study chemistry further without trying to achieve advanced placement. This course is an introduction to stereochemistry, the study of the symmetry and shapes of organic and inorganic molecules. (Dr. Rees)

**52—23 Advanced Placement Chemistry (T2) (a two-term commitment)**

(8275) Prerequisites: *Chemistry 25* or *Chemistry 30* completed with distinction and a year of physics, which may be taken concurrently. Four prepared periods and one unprepared, double laboratory period. The course is for students who wish to prepare for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.

**55—0 Honors Introductory Chemistry—Advanced Placement**

(8280) Prerequisite: One year of physics. Three prepared periods for recitation and two unprepared, double laboratory periods. This course is open to a limited number of able students, by invitation, who have strong scholastic records in mathematics and physics. No prior course in chemistry is expected. It is essentially the equivalent of a first-year college course, and prepares students for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.

## Physics

**25—0 Physics**

(8310) Five class periods, one unprepared. Open primarily to Lower Middlers. An introductory course in the basic concepts of physics. A less rigorous course than *Physics 30*, it is designed for students with latent mathematical maturity. Students should have completed one year of algebra before enrolling. Successful completion of the course prepares the student for the College Board Achievement Test in Physics. Text: *Concepts of Physics* by Miller, Dillon, and Smith.

**30—1 College Physics**

(8321) Five class periods. Co-requisite: Registration in at least *Mathematics 30* or its equivalent. A non-calculus, B-level Advanced Placement physics course for students with ability in mathematics and science, this first term is a study of classical mechanics (including rotational dynamics and physical pendula), with



extensive laboratory work an integral part of the course. *Physics 30-1* (or equivalent) is a prerequisite for *Physics 30-23 (T2)*. Text: *College Physics*, by Franklin Miller.

**0-23 College Physics (T2) (a two-term commitment)**

(25) Prerequisite: *Physics 30-1*. Five class periods. Wave motion, heat, kinetic molecular theory, thermodynamics and electrostatics in Winter Term. Electrodynamics (including magnetism), geometrical and physical optics, early atomic and nuclear theory in the Spring Term.

**2-12 Advanced Physics (T2) (a two-term commitment)**

(74) Prerequisite: Honor grade in *Physics 30* (or equivalent). The student should also have successfully completed a first-year calculus course. This is a rigorous course in mechanics (Fall Term) and electro-statics and dynamics (Winter Term) using both scalar and vector calculus extensively. This course generally prepares candidates successfully for the C-level Advanced Placement Examination in Physics and entrance to *honor level* programs in physics at the best colleges in the world. Text: *Physics* by Resnick and Halliday. (Mr. Apgar)

**5-0 Physics Honors**

(80) Four prepared class periods and one unprepared double laboratory period. An advanced course using considerable scalar and vector calculus. Open only by permission of the Department Chairman to a small group of very talented students who should have completed a first-year calculus course. The course is designed for students who have not previously taken a course in physics, may have taken a chemistry course, and generally plan to take the C-level Advanced Placement Examination in Physics. This is a very rigorous course and only those who demonstrate great talent and interest should attempt it. In the last few years it has tended to be more theoretically oriented than other department offerings. Text: *Physics* by Resnick and Halliday. (Dr. Perrin)

**6-3 Relativity and Quantum Mechanics**

(93) Prerequisites: *Physics 30* and *Math 52*. Four prepared class periods. Relativity and Quantum Mechanics are two theories that completely revolutionized man's thinking about the universe. The course is a survey of the basic ideas underlying these theories. Special mathematical techniques needed for a better understanding of the material are developed in the course. (Mr. Apgar)

**al Science Courses**

**imal Animal Behavior**

Prerequisite: one year of Biology. Limit of sixteen students. Preference given to Seniors. Three prepared class periods and one unprepared double laboratory period. The course is designed to familiarize the student with the basic principles of animal behavior. The topics which receive the greatest emphasis are: territoriality, courtship, parental behavior, migration, dominance, and the evolution of behavior patterns.

**omy Observational Astronomy**

(21) Four prepared class periods. Astronomy is one of the few sciences left that the amateur can enjoy while still making meaningful contributions to the field. This course exposes students to observing the heavens with the unaided eye, binoculars, and telescopes. Classes are scheduled in the Observatory three

nights each week. Students identify constellations, track asteroids and planets, and learn how to observe using a telescope. Limit of 10 students. Students are encouraged to bring cameras, binoculars or other optical equipment they own. Permission of the instructor is required prior to enrollment. (Mr. Sartori)

**Astronomy**      **Astronomy—The Universe Beyond the Solar System**

35—2

(8432)

Four prepared class periods. This course is designed for Uppers and Seniors who are interested in a college-level course in modern astronomy. We shall consider some of the most fantastic objects in the known universe, such as quasars, pulsars, and black holes. In addition we shall discuss the theories which describe these objects, theories that analyze the evolution of stars, the formation of the universe, the implications of relativity for space travel, and the search for extraterrestrial intelligence (ETI). The course will be made up of slide presentations, films, discussions and sessions in the Phillips Academy Observatory. (Mr. Sartori)

**Geology**      **Geology**

34—1

(8451)

34—3

(8453)

Four prepared class periods, with two periods each week used for laboratory work. A general introduction to physical geology, with special attention given to socially significant aspects of this science, e.g., mineral resources, ground-water budgets, petroleum exploration, nuclear waste disposal, geothermal energy. Text: *Earth's Dynamic Systems*, Hamblin. Lab Manual: *Physical Geology*, Hamblin. (Dr. Wilson)

**Science**      **The Physics of Technology**

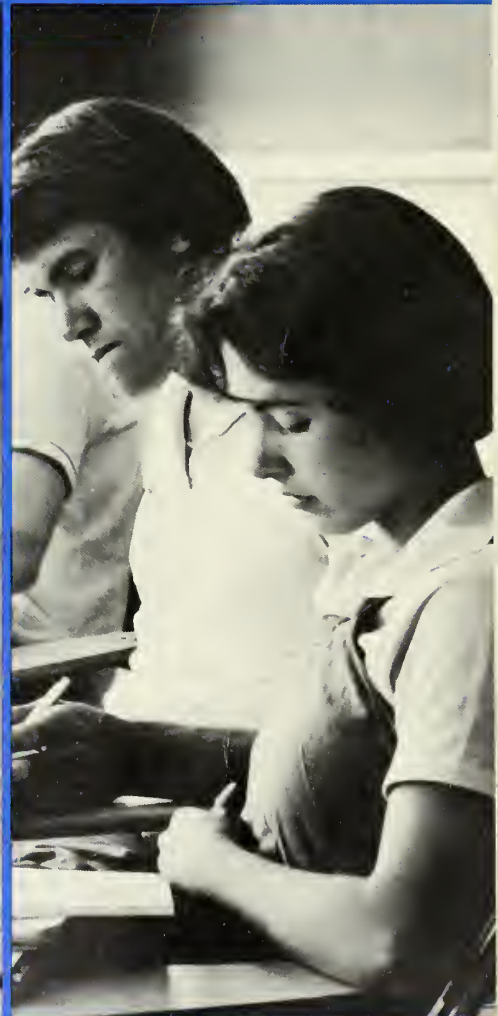
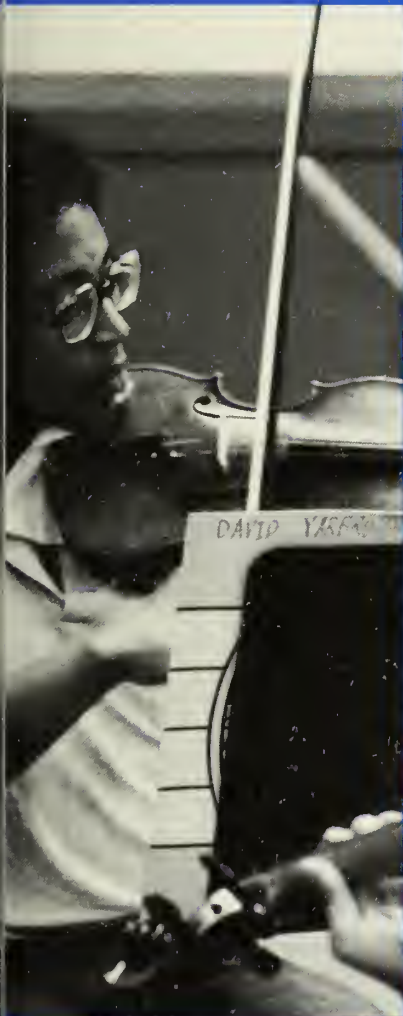
36—1

(8561)

Prerequisite or co-requisite: *Mathematics 30* or equivalent. Three prepared periods and one double-period laboratory. This non-traditional physics course is open to students with no previous background in physics who would like to investigate how physics applies to technology. The course will consider such topics as: strobe photography as a scientific tool; vibration and resonance (case study, the Tacoma Narrows Bridge collapse); solar energy and solar collectors; nuclear reactors and their dangers; aerodynamics and the SST; and, possibly, optics and lasers. This course is more intuitive and less mathematical than *Physics 30* and will place emphasis on lab work and discussions. In general, this course is not open to students who have taken physics, though permission from the instructor might be granted in special cases. (Mr. Sartori)

# Andover

## Catalog 1980-81



The Institute for the Century is committed to providing general information from various Thematic Academic Studies, rather than a complete record of any one year. Drawing on our research, we carefully selected and the information is available to research and other




# Andover

## Catalog



Published by Phillips Academy Andover, Massachusetts 01810

OLIVER WENDELL HOLMES



Phillips Academy,  
Andover, Massachusetts,  
better known as Andover,  
is an independent,  
coeducational, integrated  
and non-sectarian  
institution offering a  
variety of academic  
programs for high school  
students.

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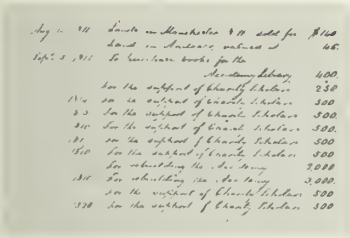
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PHILLIPS ACADEMY IN 1778.



# Introduction to Andover



Aug. 1. 1789	Don't in Andover \$ 10. sold for \$100	
Sept. 2. 1789	Don't in Andover, ordered at	40.
	To purchase books for the	
	Andover Academy	400.
	For the support of Charitable Children	250.
Nov. 10	For the support of Charitable Children	300.
Dec. 5	For the support of Charitable Children	500.
Dec. 20	For the support of Charitable Children	500.
Dec. 31	For the support of Charitable Children	500.
Dec. 31	For the support of Charitable Children	500.
Dec. 31	For rebuilding the Andover Academy	3,000.
Dec. 31	For rebuilding the Andover Academy	3,000.
Dec. 31	For the support of Charitable Children	500.
Dec. 31	For the support of Charitable Children	500.

In 1789 the first scholarship monies are recorded, from John Phillips, "in consideration of further promoting the virtuous and pious education of Youth, (poor children of genius and of serious disposition especially) in Phillips Academy, founded in Andover, Massachusetts."

In an old carpenter's shop, "fitted up temporarily for school purposes," thirteen pupils gathered to meet Master Eliphalet Pearson and hear a dedicatory sermon by the Reverend Jonathan French. The date was April 30, 1778, and the Phillips School of Andover was begun. There was little reason to believe the future held bright promise that Thursday morning over two hundred years ago, for both our school and the young nation of which it was a part existed more in the hopes of their founders than in reality. Indeed there was a certain audacity in venturing any new enterprise at a time when the war with England was going badly and there was, as yet, no stable government for the new American nation. But twenty-six-year-old Samuel Phillips, Jr., had set about convincing others that the times required just such a venture as the Phillips School. He wrote, "upon the sound education of children depends the comfort or grief of parents, the welfare or disorder of the community, the glory or ruin of the state. The present public ignorance gives rise to a fear of events the most dreadful. . . ."

Our modern Phillips Academy bears little physical resemblance to its origins, but it is striking how strong the threads of continuity are with the ideals and even the government set forth by the founders. The emphasis on intellectual and moral training and the determination to draw able young people from every quarter of society are ideas as appropriate today as they were in the Revolutionary age in which they were conceived.

Andover, for all of its more than two hundred years, has been and remains a place for young people to learn "the great end and real business of living," a goal set forth in the Constitution that has served us, unchanged save for emphasis appropriate to the changing times, for over two centuries. We serve today some two thousand young people, most between fifteen and eighteen years of age, at the Academy among the course of a calendar year. Some twelve hundred students are



President George Washington wrote in 1795:

There are too [sic] private Academies in the state of Massachusetts which are highly spoken of . . . That at Andover I have been at myself, it is in a high, dry & pleasant Country; & is more of a township than a town — Inhabited by respectable & well disposed people — Schooling, board, washing & lodging will not much, if any I am told, exceed two dollars a week for each boy.  
Excerpt from President Washington's letter to his nephew, Colonel William Augustine Washington, who subsequently enrolled his sons

at Andover during the traditional school term for periods up to four years. Over eight hundred spend the summer with us. While the students in our day are drawn from a narrower age group than earlier — Eliphalet Pearson faced both a six-year-old and a thirty-year-old in his first class in April of 1778 — their hopes and worries, many of the decisions they face, even their pranks, are timeless.

It should be a privilege to attend Andover, but Andover should not be a school of privilege. We are committed to enrolling able students from all economic levels, from every racial, religious and ethnic entity, "from every quarter" of American life, and from foreign lands. Our *Constitution* bids us do this. Andover is no single group's sanctuary. In a day when many Americans, by their actions, are rejecting even the ideology of the melting pot, we assert it.

Andover is a residential school, a twenty-four-hour learning community. This allows us to draw young people from across neighborhood lines, across state and national boundaries. Young people learn from peers as much as from teachers, particularly in a setting where there is no abrupt clash between classroom and street, between school and home. Class, racial, religious and geographic diversity enrich a school and undermine the divisions that rend national and international life. We presume to forward the learning of leaders here, and leaders in our day must know first-hand how trivial are racial, social, national and religious differences, and how significant is the unity in humanity.

Andover is well equipped to provide for students whose interests and abilities are primarily in the academic realm, in the traditional liberal curriculum. While the so-called "liberal arts" in American schools and colleges have often drifted into pedantry and dullness, we yet believe that the core of this tradition is sound. When demandinglly taught, this liberal arts core provides the basis for public and moral leadership. Keen rationality, nourished by examined tradition, is the root of individual decency and freedom.

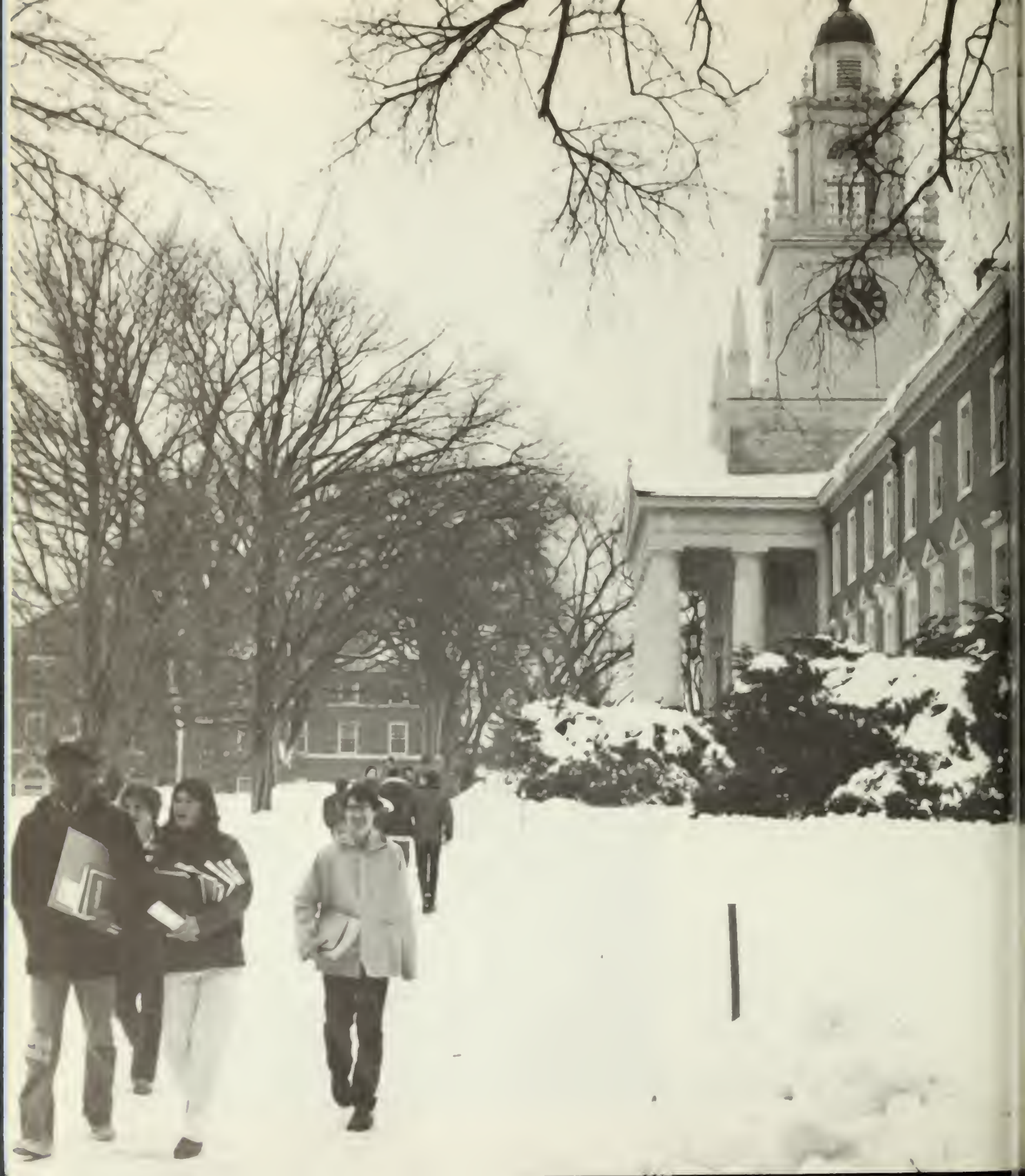
In a school the principal means to achieve these ends are decent, free and talented teachers. Andover's teachers are strong personalities, individuals of energy and well-considered values, instructors whose work is in the classroom, and also on the playing field, in the dormitory, in the dining hall — in short, across the full range of places where both adult and young person meet. American education is moving away from such a model of teacher. In the mistaken belief that "efficiency" will result, teaching is broken into mechanistic bits. Andover makes a stand for the other, older tradition, for whole teachers who are concerned about whole pupils, their struggles and joys, their bodies and souls as well as their brains.

Our American culture, alas, is not one which takes youth seriously. True, we "use" adolescents as a market and sell much to them. We make fetishes of their tastes. We curse them and try to curb them when they disturb adult lives. But generally Americans feel that the teenaged years are something to get over, certainly not something in which to invest, to respect or to trust. The founders of this school knew better, and we reassert that knowledge. We do take youth, and adolescent education, seriously. Youth is important, a crucial time of life. For those whom Andover serves, now and in the future, we want it to be a rich, constructive and joyful experience.

THEODORE R. SIZER  
*Headmaster*









## Andover Life

### A Beginning



In 1782 Paul Revere was commissioned to make the Phillips Academy seal. Revere engraved the educational faith of Andover's founders — "The end depends upon the beginning" — around the symbols of the rising sun and the hive of industrious bees. The founders' religious and patriotic commitment to the common good is symbolized by the second motto, "Non sibi" — "not for one's self."

### A Purpose

Phillips Academy opened for instruction shortly before the Continental Army marched out of Valley Forge and, in one sense, the school and the nation have grown up together. Paul Revere engraved Andover's seal; John Hancock signed its Act of Incorporation, and George Washington sent his nephews here to study. Samuel F. B. Morse and Oliver Wendell Holmes were students of Principal John Adams. Harriet Beecher Stowe lived and worked at Andover; she is buried in the Academy cemetery, and her home is now a dormitory. "America" was written on Andover Hill in 1832. For over two centuries we have sought to develop sound scholarship, character and self-reliance in our students, as well as a commitment to work for the good of the nation and mankind.

If you come to Andover today, you won't have to go far to see a building designed by Charles Bulfinch or one named for Nathan Hale. You will take classes in a modern arts and communications center, an archaeology museum and in buildings dating back to the War of 1812. You might live in a dormitory constructed in 1808 or one built in 1973. Your next door neighbor might be from Texas or Thailand. You might take Greek and kinetics, or Russian and astronomy. You might learn how to play squash, discover what it's like to work for a radio station or how to run rapids in a kayak or canoe.

The opportunities are here.

The Phillips Academy faculty, meeting in the winter of 1979, adopted the following as a statement of goals and intentions:

Phillips Academy is committed to providing a rigorous academic education for qualified "youth from every quarter," as stipulated by our Constitution, and to helping

students develop the skills and values necessary for personal fulfillment and a significant contribution to society. The Academy strives to meet this commitment in several ways: recruiting aggressively and welcoming qualified and promising students from a wide range of ethnic, economic, and geographic backgrounds, in the belief that diversity itself can be an enriching component of education; providing a strong curriculum in intellectual and artistic disciplines to cultivate a vision of man's potential as well as an understanding of his accomplishments, and to establish a basis for further exploration and perhaps eventual specialization; offering a diversified program in competitive athletics and physical education to foster physical agility, endurance, and resilience, as well as an appreciation of physical achievement and the notions of play and sportsmanship; developing a program in health to promote an understanding of and respect for physical and emotional well-being and to encourage sound health habits; encouraging the study and exercise of religious beliefs, as a means of spiritual nourishment; offering experiences in leadership within the community, in order to develop responsibility, resourcefulness, and social concern; and providing innovation and a measure of leadership in secondary education, a responsibility dictated by our combination of independence, resources, and tradition.

## The Place

Phillips Academy was the first boarding school to be incorporated in the United States (1780). For 194 years, until 1972, it was an all-male institution; in October of that year the Trustees of the school announced the merger of Abbot Academy and Phillips Academy to effect a single coeducational school. Abbot Academy, established in 1829, was one of the oldest girls' boarding schools in the nation. Several years of coordinated academic courses and extracurricular activities between the two neighboring schools preceded the merger. During its more than two centuries the school has grown in size from a single rude building and a few acres of land to an extended campus of 160 buildings on over 450 acres.

The school is located on a hilltop in the town of Andover, a 45-minute bus ride from Boston and Cambridge. It is well situated for easy access not only to the historical, cultural and entertainment offerings of the Greater Boston area, but to the beaches and mountains for which northern New England is justly renowned.





## The People

### *Students*

There are almost twelve hundred students in Andover's regular session, about forty percent girls, sixty percent boys. Day students comprise one-fifth of the enrollment. More than eight hundred attend the Academy's Summer Session, and some sixty attend the Short Term Institutes held on campus at various times during the school year (see page 44).

Andover students come from every walk of life, from virtually every state in the union and from more than twenty foreign countries. They are divided into four classes: Seniors, Upper Middlers, Lower Middlers and Juniors — our traditional terms for 12th, 11th, 10th and 9th graders. Although some are here for four years and others for programs taking a much shorter time, they all have two things in common: intelligence and the willingness to use it.

### *Faculty*

The faculty number approximately two hundred; over half hold advanced degrees at the master's level or higher. The power of an Andover education flows directly from their scholarship and classroom teaching.

Andover asks much of the men and women who teach here: although the heart of the work is in the classroom, the tradi-





tion of schoolmastering calls for the teacher to serve simultaneously as House Counselor or student advisor, coach and part-time administrator. Andover teachers are accessible to students in the dormitory, in athletic endeavors, in extracurricular activities; they share an abiding interest in the growth of young people and a willingness to become directly involved in that process.

### A year, a week, a day

Andover operates on a trimester system, offering about 290 separate courses that vary in length from one trimester to the full year. The year begins in late September and ends in mid-June, with breaks at Thanksgiving, Christmas and in the early spring.

Classes are held on Monday, Tuesday, Wednesday morning, Thursday, Friday and every other Saturday morning. Classes are normally fifty minutes long, providing five instructional periods in the morning and, with the exception of Wednesday and Saturday, two in the afternoon. An individual is likely to have one morning period and one afternoon period free each day, depending on the scheduling of courses and laboratories.

Participation in athletics is required of all students, and athletics and activities are scheduled four afternoons a week for two hours each. On Wednesday and Saturday afternoons, varsity and junior varsity teams often participate in interscholastic competition.

Meals are served in Commons, the central dining hall, composed of four dining halls and two serving areas. The cost of meals is included in the fees of both boarding and day students.

Wednesdays and Saturdays are half holidays with no afternoon academic appointments. On alternate Saturdays there usually are no morning classes. Sunday is totally free. On these days there is time for independent study, for special projects, for informal sports, shopping in Andover or trips to Boston, the beach or the mountains. Social events during the week are limited by the demands of the academic program, but the weekend program on campus includes dances, concerts, movies, plays and informal activities.



Most students are eligible to take a day excuse each week and, after the first two weeks of the year, they are eligible to take overnight excuses beginning after their last scheduled weekly appointment.

Course work is intensive and involves about twenty-five hours of outside preparation each week. Required athletics or afternoon activities total approximately six hours each week. In addition, all students are required to participate in the school's work program, performing assigned tasks, supervision or leadership responsibilities two hours each week. Despite the amount of time that must be spent on academic pursuits, most students become very involved in these extracurricular activities and social events. The school encourages independence and personal responsibility: there are no study halls, and decisions about the use of one's time are largely left to the judgment of the individual.





## Residential Life



Dancing was forbidden in the 1820's, and when a rash Frenchman proposed to start a dancing academy in the town, the Principal [John Adams] did his best to have him summarily ejected by the village fathers."

Claude M. Fuess, *An Old New England School*

### *Dorms and Clusters*

Boarding students live in dormitories with faculty House Counselors and their families. Although these buildings vary in size and house from four to twenty-four students, all are small enough to encourage close relationships among students and between students and House Counselor. One-third of the students live in single rooms; two-thirds have one or two roommates. Rooming arrangements vary from large one-room doubles to three-room suites; larger dorms are likely to have students from at least three classes.

For many students, dormitory life is one of the most valuable aspects of their time at Andover. Whether it's planning a pancake breakfast or studying for a history mid-term, sharing it with people from very different backgrounds or from foreign lands is a rewarding learning experience.

Dormitories are grouped into six geographical units called "Clusters," each including girls' and boys' dorms, about two hundred students from all classes, and twenty to thirty faculty families. Clusters create the personal atmosphere of a small community in which everyone knows everyone else and people do most or many things together. The Cluster System is the heart of Andover's residential life, bringing the advantages of a small school to an institution that already has the advantages of size.

The Clusters have considerable independence; teachers and students together manage their own affairs under the leadership of a Cluster Dean. Each Cluster has its own student officers, discipline system, intramural athletics and informal social activities.

Clusters are responsible for administering much of the student work program, which is designed to develop a sense of community responsibility for the daily operation of the school. It also assists the school in reducing its expenses. Working no more than two periods a week, students share the jobs of returning books to library stacks, operating audio-visual equipment, serving as office helpers, messengers, laboratory assistants, and performing other essential tasks. Other students are responsible for the daily care of dormitories, while all residents of a given dormitory are responsible for keeping its entries free of litter and snow.

The Clusters take turns each week working in the dining hall, Seniors serving as overseers. Seniors have many other supervisory roles, including proctorships, work duty and administrative tasks.

### *Counseling and Discipline*

Those who are not accustomed to a residential school may at first be surprised by the degree of independence an Andover







Always speak to an Andover man on the street, whether you know him or not. All cheering is under the direction of the cheerleaders. Individual cheering is not allowed. New men are expected to have the songs and cheers perfectly learned by the end of the first two weeks. It is not good form to cut or mark school furniture. Try to keep enlarging the number of your acquaintances, but be slow to make intimate friends.

*Selections from 1920's rule book, Customs, and Points for New Men.*

student has, on the other hand, they may be surprised by the existence of rules and procedures necessary to protect the rights of individuals and to enable the school to achieve its ends. Existing rules have a dual purpose: to preserve the necessary order in the community so that effective learning can take place, and to teach students that individual freedom can be achieved only through due consideration for others. The school tries to keep rules to a minimum. Incoming students and their parents are provided with a copy of the *Academy Blue Book*, summarizing rules and regulations; all students are held responsible for its contents.

Each student has a faculty House Counselor who lives with his or her family in the dormitory and who is available for advice and assistance. This faculty member works closely with students in the dormitory on both the personal and academic level, and parents can expect to hear from the House



Counselor at regular intervals. Parents are encouraged to turn to the House Counselor for information regarding a student's progress.

Each Cluster Dean supplements the work of the House Counselor and is available to students and parents for information and advice. Other support staff include academic advisors, who help students in the Cluster plan their academic programs, and the College Counseling Office, which assists all Seniors with their future educational plans. The Psychology Department, located in Graham House, offers individual counseling for any student and leadership training for students who wish to develop those skills.

Discipline is handled at the Cluster level and involves the Cluster Dean, House Counselor, other faculty and student representatives. Offenses involving a student's integrity, social offenses that threaten the well-being of other individuals or the school community, and continued infractions that indicate an unwillingness to come to terms with the demands of the school — all render a student liable to dismissal. Cluster recommendations for suspension or dismissal are made to the Headmaster, who makes the final decision. Examples are dishonesty, the possession or use of alcoholic beverages or illegal drugs and unauthorized absence from school bounds. Students may not possess, rent or drive any motor vehicle within school bounds; bicycles are permitted. Andover does not allow smoking, unless students have completed a school-administered course on the health hazards involved and have parental permission.

In a community such as Andover, all must commit themselves to the goals of the community and to loyalty to each other. Since education at Phillips Academy is both intellectual and humane, students and faculty derive mutual support from sharing of themselves and their ideals.

Trust and responsibility have many interpretations; these words have become hackneyed from overuse and misunderstanding. But the ideas they embody — sensitivity to others, willingness to explore and respect differing points of view, charity and humility in expressing judgment, readiness to cherish friendship, to depend and to be depended upon — are nonetheless fundamental. Such values can scarcely be legislated and can only be imperfectly defined. Yet the health and happiness of everyone in the community depend on consideration and awareness, restraint and candor, discretion and shared joy. Collaboration toward these imprecise but worthwhile ends is an expectation which all at the Academy hold.

Only boys and girls who feel that they can live happily with the rules and guidelines of Phillips Academy should apply for admission.



In the early 1930's Abbot alumnae parents tried to persuade Principal Bertha Bailey to abandon the required long black stockings worn with the girls' gym bloomers. To this request she steadfastly refused: "I don't like legs."





Harriet Beecher Stowe, author of *Uncle Tom's Cabin* and her husband, a Seminary professor, lived in Stowe House. She is buried in the school cemetery. Mrs. Stowe shocked the strict Congregationalist community by giving parties and entertainments for students, was suspected of going to the theater and even of having "Episcopalian leanings."

Claude M. Fuess, *An Old New England School*

### *The Campus Ministry*

Phillips Academy is committed to a "team" ministry, representing the Protestant, Roman Catholic and Jewish faiths, that seeks to be responsive to the spiritual needs of the school. The school chaplains teach in various fields and have the additional responsibilities of worship services and of pastoral counseling. Andover students come from various religious traditions—some have no religious affiliation. The school wishes actively to support religious communities within the institution and hopes that a less formal but more focused approach to the spiritual life of the school will encourage other teachers and students to active participation and leadership.

Worship services are available for all who wish to participate. A Protestant interdenominational service and a Roman Catholic Mass are held on Sundays; the Jewish congregation has services regularly on Friday evenings.

### *Activities*

Extracurricular activities are an important aspect of a student's education, and Andover offers a rich fare, thanks to the diversity of interests in the student body. From the Pre-Med Club member to the Model Railroader, it seems that all Andover students do something special in their free time.

Many of the activities are service-oriented; the Community Service Program places student volunteers in area hospitals, elementary schools, youth centers and other agencies. Closer to home, the Tour Guide Association handles the responsibility of conducting campus tours for the Admissions Office. Older students who are members of the Tutorial Program offer help to fellow students in academic difficulty. The student radio station, WPAA (91.7 on your FM dial), is on the air from 6:30 a.m. to 11:30 p.m. daily, serving the local listening area as well as the student body. *The Phillipian*, the Academy's student-run weekly newspaper, is wholly uncensored; students lay out the paper and do some of the typesetting, as well as write the articles and headlines. The *Pot Pourri*, the school yearbook, and the school literary magazine, *The Mirror* (Robert Frost was an early contributor), provide more opportunities for those with a literary bent.

Cultural organizations include the Afro-Latino-American Society, the Asian Cultural Society and others; course-related groups range from the Astronomy Club to the Russian Club. The Chapel Council, the Newman Club and the Jewish Student Union support the "team" ministry in providing active religious communities for Andover students.

At any time during the week, actors and directors will be working on a main stage play or on a student production in



the Drama Lab; the Andover Student Political Union may be listening to a State Department official discuss the Middle East; the Natural History Club may be birdwatching on an ocean beach or — if the season is right — the Ski Club may be on its way to the White Mountains of New Hampshire.

Many students make extensive use of school facilities in their free time, whether or not they are affiliated with a club or organization. The Arts Center is a major focus of school life — darkrooms are used almost around the clock, and students and faculty interested in painting, metal sculpture, ceramics or design make use of the center's studios and workshops in their free time. The Music Department also provides facilities for students interested in pursuing music beyond the classroom.

There is no limit to the variety of extracurricular activities at Andover. Students who do not find an existing club or organization that meets their needs are encouraged to start one.

### Undergraduate Organizations (Clubs)

Afro-Latino-American Society  
Andover Student Political Union  
Asian Cultural Society  
Astronomy Club  
Athletic Advisory Board  
Backgammon Club  
Band  
Blue Key  
Brass Choir  
Bureau of Tutoring  
Cantata Singers  
*Caucus* (Af-Lat-Am publication)  
Chamber Music Society  
Chapel Council  
Cheerleaders  
Chess Club  
Chorus  
Coin Club  
Day Student Union  
Drama Workshop  
Dungeon and Dragon Society  
Duplicate Bridge Club  
Eagle Scout Post 107

EAT (Environmental Action Team)  
*Eidolons* (student photography publication)  
Fidelio (madrigal singing society)  
French Club  
German Club  
Health Food Club  
Jazz Band  
Jewish Student Union  
Math Computer Club  
*The Mirror* (literary magazine)  
Model Airplane Club  
Model Railroad Club  
Muse  
Natural History Club  
Newman Club  
Orchestra  
Outing Club  
*The Phillipian* (weekly student newspaper)  
Philomathean Society (debating society)  
*Pot Pourri* (yearbook)

Pre-Law Society  
Pre-Medical Society  
Press Club  
Psychology Club  
Radio Broadcast Association (WPAA-FM)  
Russian Club  
Sailing Club  
Ski Club  
Social Functions Committee  
Spanish Club  
Stage Crew  
Stamp Club  
Student Guides  
SUMOP (Summer Job Opportunities)  
Table Tennis Association  
United Nations Club  
Western Union  
Women Students' Union  
Young Democrats





## Educational Resources

### The Oliver Wendell Holmes Library

At the center of Andover's intellectual life is the 102,000-volume Oliver Wendell Holmes Library, named after the famous doctor and poet who was a member of the Class of 1825. The stacks are open to students. In addition to academic work, students and teachers use the library to explore new fields of interest and to read casually.

The library subscribes to over 260 American and foreign periodicals and eighteen daily papers from cities throughout the country. A microfilm file of *The New York Times* is available. Particular library treasures are the Jansson Atlas, printed in Amsterdam in 1657, papers and books of Oliver Wendell Holmes, and one of the world's leading collections of Vergiliana. The Science and Mathematics Departments have working libraries in their own buildings.



## The Addison Gallery



Seated Woman  
by Elie Nadelman 1917

The Addison Gallery of American Art operates both as a museum in the traditional sense and as an art center for the whole community. In addition to organizing exhibits of American art from its own collection, the museum originates exhibits of contemporary painting, sculpture, photography and crafts. A student-produced seminar series brings artists into close-range contact with students concerned with issues of use and survival in the arena of contemporary art. In cooperation with Phillips Academy's Music Department, concerts by faculty and students are produced in the museum.

The holdings of the museum are recognized as a distinguished specialized collection: Allston, Copley, Morse, Stuart, West and others represent the Colonial period. Of special importance among the many paintings of the nineteenth century are examples by Cole, Doughty, Eakins, Homer, Inness, LeFarge, Ryder, Twachtman and Whistler. The early part of the present century is shown in the work of Bellows, Davies, Demuth, Hassam, Hopper, Luks, Marin, Prendergast and Sloan. Contemporary artists are represented by works of Calder, Lippold, Moholy-Nagy, Hofmann, O'Keeffe, Pollack, Shahn, Wyeth and others.

## The Robert S. Peabody Archaeology Museum

The Robert S. Peabody Foundation for Archaeology has conducted major archaeological research in this hemisphere for the last seventy-five years and has published many reports of its scientific investigations. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas. The laboratories of the museum are used in teaching and illustrating the Foundation's research. Mature students may undertake special study projects which involve the use of the Foundation's collections and library resources.

Current research is concerned with the origins of agriculture and with the concomitant rise of civilization in the New World. The Foundation maintains continuing research programs in Mexico and Peru and supports major publications based on the analysis of this research. The Peabody Foundation is under the direction of Dr. Richard S. MacNeish, a member of the National Academy of Sciences of the United States; the curator is Dr. Jane Wheeler.



## The Cochran Sanctuary

The Moncrieff Cochran Sanctuary is a sixty-five-acre tract of rare beauty located so close to the center of school activity that it is in fact an extension of the campus. Landscaped areas planted with dogwood, azalea, rhododendron and laurel provide a succession of bloom that draws many visitors from late April to mid-June. A brook and two ponds attract nesting ducks and geese, and extensive natural wild areas, varied in terrain and plant life, provide nesting places for many species of land birds. Cross-country runners and skiers make extensive use of the Sanctuary, as does the Academy's Search and Rescue program.





## The Academic Departments

### The Curriculum

The curriculum of Phillips Academy contains both a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Instruction is given in all subjects required for entrance to higher institutions, whether liberal arts or technical. All departments offer courses beyond the level of preparation for college.

Classroom groups are small enough to permit individual attention; the average class size is fourteen. Students are placed in sections fitted to their attainment and, through accelerated sequences and advanced courses, are encouraged to progress at a rate commensurate with their ability and ambition. Many students fulfill requirements ahead of the normal year, increasing their choice of college-level courses and other elective opportunities. Andover's trimester system provides flexibility and variety in the curriculum and allows various combinations of independent work and off-campus projects.

Every student is assigned to an academic advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements and the student's particular interests. With the approval of the academic advisors and House Counselors, students may select their instructors, class times and sections during the Arena Day preceding each trimester. However, the school cannot guarantee that all students will be able to have their desired selections.

The curriculum and diploma requirements are described in detail in the *Course of Study*, which will be sent upon request to each preliminary applicant and to others who would like to receive it.



## THE ARTS



When Humphrey Bogart flunked out of Andover in 1918, it was not from lack of ability; his teachers agreed. Headmaster Alfred Stearns wrote to Humphrey's father, a classmate of Stearns: "The boy is all right at heart and is bound to come out on top."

### Visual Arts

At the heart of the art program is a concern that all students learn to see freshly and accurately, that they learn how to organize their efforts to make something happen, that they develop a critical eye for the coherence of their environment — all these with an independent mind.

The diploma requirement in art is as follows: Juniors and new Lower Middlers must take a trimester course in studio art; an entering Upper Middler must take a trimester course in studio art or music. Andover attempts to balance structured, problem-solving courses like the basic Visual Studies, with more adventurous advanced courses, organized around longer-term projects. For a student who desires several terms in art or design, the courses are here — whether the student's objective is a professional school, Advanced Placement in a liberal arts college, or simply a strong basis in a traditional area of general education.

The superb facilities of the Arts and Communications Center — fully equipped wood and metal shops, two complete photo labs, print-making equipment, painting and drawing studios, a kinetics studio — are supplemented by the several kilns available to ceramicists. The department welcomes extracurricular use as well as work related to courses, and faculty members are on hand every evening to encourage the idea that whether it's painting or bicycle repair, the Arts Center is the place to go.

### Theatre and Dance

Courses in theatre are designed for students who seek formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work on plays. A variety of experiences is available: some courses are performance oriented; some are theory oriented; some are both. All combine classroom and workshop sessions; students work out practical theatrical problems together under the guidance of an instructor. Dance may be taken as a course or as an activity.

George Washington Hall, capable of handling audiences of one thousand, includes a flexible, professionally equipped proscenium stage. It has a full fly system, accommodation for numerous lighting





instruments and an elevator/pit. Recent main stage productions have included *The Me Nobody Knows*, *A Thurber Carnival*, *Cabaret*, *The Time of Your Life*, *The Comedy of Errors*, and *Twelfth Night*.

The Drama Lab, also in George Washington Hall, is a "black box" — an intricate arena/workshop with excellent lighting facilities, suitable for audiences of not more than ninety. Although main stage plays are usually directed by a member of the faculty, the Drama Lab allows students to direct plays themselves and to experiment with dramatic styles. A sample of productions from recent years includes *Trial by Jury*, *The Point*, *The Prime of Miss Jean Brodie*, and plays by Albee, Ionesco, and Pinter. Original student work is also performed here.

Theatre students are encouraged — but not required — to supplement their classwork by participating in any of the numerous productions mounted each year; anyone may audition for the Andover Touring Company, for several years part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life* and *Godspell* during spring vacation.

## Music

The Music Department faculty consists of five full-time and several part-time instructors. Other highly qualified instrumentalists are available to teach voice, piano, organ, classical guitar, brass, percussion, strings, and woodwinds.

Andover offers courses for the beginner as well as for intermediate and advanced students both at the applied level (study of musical instruments or playing in a musical organization) and in the history, appreciation, and theory of music. An entering student who has not had the opportunity to learn to play may join a class to study an orchestral instrument. He or she may also, for a nominal fee, study privately.

The Nature of Music, or Music 20, is the diploma requirement in music, and a prerequisite for most courses in the history, appreciation, and theory sections. A more advanced three-part course, Theory of Music, runs in sequence throughout the year.

Graves Hall, the department's home, has large rehearsal halls for the Concert Band and the String

Orchestra, many individual practice and ensemble rooms, one music classroom, teaching studios and an electronic music studio. The department also has a large, up-to-date record library and listening room. The Chorus has a fully equipped rehearsal room and a library of music literature in the Cochran Chapel, a short distance away. The Chapel also houses two organs for the use of beginning and advanced organ students. One is located in Kemper Chapel, the other, in the main chapel, is a 30-stop, double manual, tracker action instrument.



## VISUAL ARTS

### *Introductory Studio Courses*

Visual Studies  
Visual Studies for Juniors  
Introductory Ceramics  
Introductory Photography  
Art Studio

### *Intermediate Studio Courses*

Visual Studies (Art 10) is a prerequisite for all intermediate courses.

Drawing  
Animation  
Two-Dimensional Design  
Three-Dimensional Design  
Intermediate Ceramics  
Intermediate Photography

### *Advanced Studio Courses*

Visual Studies (Art 10) is a prerequisite for all advanced courses.

Graphics and Photography  
Studio Photography  
Painting  
Filmmaking  
Advanced Ceramics  
Print Shop  
Advanced Photography  
Sculpture  
Kerfuss  
Architecture

## Contemporary Communications

Puppetry  
Calligraphy: The Art of Lettering by Hand  
Advanced Placement in Studio Art  
History of Art: Painting and Sculpture  
History of Art: Architecture

## MUSIC

*Applied*  
Beginning Instruments  
Recorder Ensemble  
Brass Ensemble  
Woodwind Ensemble  
String Ensemble  
Fidelio Society  
Band  
Chorus  
Chamber Orchestra  
Private Instrumental and Vocal Lessons  
The Nature of Music  
Developing Musical Skills  
*History and Appreciation*  
Medieval and Renaissance Music (to 1600)  
Baroque Music (1600-1750)  
Classical Music (1750-1820)  
Romantic Music (1820-1900)

## Twentieth Century Music (1900-Present)

Independent Study in the History and Literature of Music

## Jazz

Popular Music in America

## Theory

Orchestration and Conducting  
Theory of Music I  
Theory of Music II  
Theory of Music III  
Electronic Music  
Advanced Techniques in Electronic Music

## THEATRE AND DANCE

### *Theatre*

Introduction to Theatre  
Introduction to Acting  
Public Speaking  
Acting Workshop (Intermediate)  
Advanced Acting  
Directing Workshop  
History of Theatre  
Stagecraft  
Play Production  
Shakespearean Workshop  
Playwriting

### *Dance*

Introduction to Dance

## CLASSICS

Latin and Greek — still? Yes, as futuristic nightmares and present turmoils are reawakening a search for order, perspective and ideals in the human experience, names like Plato, Vergil, the Parthenon and the *pax Romana* not only symbolize great milestones in that search but also suggest the habits of mind that produce enduring greatness — the same habits of mind that show up so clearly in a sentence, paragraph or entire work of Latin or Greek literature.

The chief aim of the Classics Department is to help students rediscover this sense of order and ideals, in the hope that they may apply it, in turn, to the challenges they face today. Many recognize this by choosing Latin or Greek as the foreign language in which to fulfill the diploma requirement. Others elect one or both as second or even third languages. Still others opt for elective survey courses in various aspects of Classical civilization, as listed below, or, by special arrangement, for independent projects in reading or research.

### CLASSICS

#### *Greek*

First Year: basics of language and culture

Accelerated First Year: two years in one

Introduction to Greek Language and Culture (one term)

Second Year: Xenophon, Plato, New Testament

Third Year: Homer, Euripides

Fourth Year: Sophocles, lyric poets, Thucydides

#### *Latin*

First Year: basics of language and culture

Accelerated First Year: two years in one

Introduction to Latin Language and Culture (one term)

Second Year: Caesar, Livy, Plautus

Third Year: Cicero, Sallust, Vergil

Fourth Year: Vergil's *Aeneid*

Fifth Year: Horace, Catullus, Livy, Tacitus

Greek Civilization

Roman Civilization

Epic Poetry

Etymology

Ancient History

Classical Mythology

Survey of Greek Literature

Survey of Roman Literature

## ENGLISH

Convinced that level of achievement is more important than the number of years a subject is studied, the English Department has established modest but firm diploma requirements. A student must prove himself competent in writing and reading through the English Competence course and, by taking the Literature Sequence, acquire a sense of the depth and breadth of his literary heritage.

Once the student has successfully completed that Literature Sequence, which normally takes a year and offers several options, opportunities multiply. Students may enroll in any of the Literature Sequence courses that they have not yet taken; they may study any of the more than twenty advanced or specialized courses offered by the department; Seniors may qualify for an independent project supervised by the teacher of their choice.

The department also serves the needs of less ad-





vanced students. Tutorials are offered for training in the fundamentals of language.

The walls that used to separate academic departments are crumbling. A number of the courses in Theatre are taught by members of the English Department. Most of the interdisciplinary courses are related to English studies. A course in English etymology is taught by the Classics Department. Several of the foreign language departments offer courses about their literature in English translation, but the fundamental requirement does not change. Every student who graduates from Andover has either passed the Competence course in the basic skills of writing and reading or English 300.

## ENGLISH

### *Introductory Courses*

Language Skills

English 300 (for Seniors and Postgraduates)

### *Required Sequence Courses*

English Competence (three terms)

Lit B, 1660-1900 (two terms)

Lit C, Shakespeare (one term)

### *Elective Courses*

(Only courses with sufficient enrollment will be given.)

Efficient Reading

Irish Studies

Great Writers Before 1850

Introduction to Writing

Hemingway: The Man and His Work

Black Literature

James Joyce

Man and God

Forms of Literary Imagination

Modern Playwrights

Shakespeare: The Man, The

Times, The Theatre, The Plays

Satire and Comedy

Novel and Drama Seminar

Creative Writing

American Writers of the

Twentieth Century

Milton and Spenser

Chaucer and His Age

Wit and Poetry in the

Seventeenth Century

Writing Short Fiction



Graceful Bulfinch Hall (1819) has been in Academy use for more than 150 years as a recitation hall, gymnasium, and dining hall and now houses Andover's English classes. Dr. Oliver Wendell Holmes, Class of 1825, immortalized "the classic hall" in his poem, "The Schoolboy," written over 100 years ago for the Academy's Centennial Celebration.



## HISTORY AND THE SOCIAL SCIENCES

The courses in History and the Social Sciences cover a broad spectrum of human experience: from the Vietnam War to ancient Athens, from modern art to primitive cultures, from the American family to Chinese society. They range in teaching techniques from drill in close reading, note-taking and testing to individual projects, written or oral, conceived by students. All are based on the conviction that a citizenry that is informed about man's experience, both past and present, is essential to a democracy such as ours. It is the hope that once interest in the story of man has been kindled, it will be pursued for the rest of an individual's life.

No course in the department uses a formal textbook. Students work with paperbacks, books on reserve in the library, mimeographed handouts, movies, and slides. In all courses emphasis is placed not only on the subject matter studied but also on the acquisition of basic historical skills that should serve the student well throughout the remainder of his educational career.

The courses for the two lower classes are focused on two courses in biography — American and European. These courses emphasize study skills

basic to the study of history. The department believes that the study of great men and women is particularly appropriate for younger students. In addition, these courses are designed to prepare the students for the course in United States History to be taken in the Upper Middle or Senior year and for other upper-level history courses. Other courses for the lower classes include one in anthropology, and one in Colonial America.

The diploma requirement for history is successful completion of United States History plus one trimester elective taken in the Upper Middle or Senior year. Again the approach is topical; the traditional aim of training students to handle historical material with discretion and to write essays containing substantive factual support for general statements remains; the pedagogical techniques for accomplishing this are constantly under review. In United States History and in many of the trimester electives, students are required to choose their own topics for an extensive paper; they are encouraged to use the raw materials of history — newspapers, letters, diaries, interviews. Qualified students in American History may spend the spring term in Washington, working as interns in Congressional offices.

## HISTORY AND THE SOCIAL SCIENCES

### *Social Science*

The Emergence of Man  
Ethnicity and Racism in  
American Society  
Environments and the Individual

### *History*

Early American Society  
American Biography  
European Biography  
The United States  
Ancient History  
Social History of Greece and  
Rome  
Social History of the Middle  
Ages and the Renaissance  
Modern Japan  
Modern China

Modern Europe: A Survey  
The Soviet Union  
Modern Russia: History and  
Literature  
Elizabethan England  
Victorian England  
International Relations: The  
Present Patterns  
The Middle East  
Latin American Studies  
The Rise and Fall of the  
American Presidency  
Schools in America  
Families in America  
The American South  
The City in America  
Quantitative Historical Data  
Analysis



## MATHEMATICS

Mathematics at Andover is addressed to several overlapping audiences within the student body: the future citizen of late twentieth century society, immersed in a culture which has been shaped to a large extent by mathematical perceptions of reality; the future user of mathematics, whose vocation may depend upon special knowledge of a mathematical sort; and the future mathematical scholar who may turn his energies and curiosity to the organization of mathematical knowledge.

The mathematics curriculum is built around a core sequence of eight trimester courses, three of elementary algebra, two of geometry, and three of precalculus topics, completion of which will satisfy the diploma requirements. An additional trimester is usually required before entering calculus. A student entering with little or no prior study of algebra normally starts with Elementary Algebra, those with a partial year of algebra may enter Algebra Review and continue to Geometry. Students entering with a full year of algebra enter Geometry. Those with one year algebra and one year of geometry will satisfy diploma requirements by taking the first three precalculus trimesters. There are several special courses for new students

which fall between the above criteria.

The department also offers many elective, term-contained and year-long courses, descriptions of which may be found in the *Course of Study*. Over one-third of all mathematics is taken electively, much of it in preparation for the Advanced Placement Examination. These courses include the study of limits and sequences, number theory, elementary and advanced calculus, analytic geometry, differential equations, probability statistics, computer analysis, linear algebra and vector analysis.

The Mathematics Department is located in Morse Hall, which also houses the campus computer center offering time sharing in the BASIC-PLUS language through ten public terminals. Instruction and practice in the use of the computer are given in the required course sequence. The main computer is a PDP-11 '70 manufactured by the Digital Equipment Corporation. The department also has several mini-computers for student and classroom use.

The community of students who like math at Andover is sizeable, and they share their curiosity and knowledge by offering to tutor other students at the school.



## MATHEMATICS

*Courses Leading to Satisfaction  
of the Diploma Requirement*

Elementary Algebra  
Algebra Review

Geometry

Precalculus

Elementary Functions

### *Elective Courses*

(Only courses with sufficient  
enrollment will be given.)

Calculus

Computer Programming

Infinite Series and Differential  
Equations

Linear Algebra and Vector  
Calculus

Mechanical Drawing

Navigation

Number Theory

Numerical Methods

Probability

Statistics

## MODERN FOREIGN LANGUAGES

As long ago as 200 B.C. the Latin poet Ennius used to say that because he knew three languages he had three hearts. Andover can render no finer service to today's world than to send forth its alumni with many hearts, ready and able to feel for, to understand, and to respond to the millions of people who speak languages other than English.

Acknowledging the importance of foreign languages, Andover requires for the diploma three years of an ancient or modern language. (For Greek and Latin, see Classics.) The modern foreign languages offered are French, German, Italian, Russian and Spanish. Emphasis is on the spoken word, and the foreign language is the basis for all communication in the classroom. Small classes make possible maximum participation, with supplementary practice provided by our versatile language laboratory. There are opportunities to join accelerated classes which complete, for example, the work of four years in three.

At the 4th-, 5th- and 6th-year levels the study of literature may be supplemented by courses in the art, history, geography and music of the foreign country. In upper-level courses students can prepare for the Advanced Placement Examination



and quality for advanced courses when they enroll in a college. Superior students may carry out independent projects, including apprentice teaching, under careful guidance.

At all levels of study progress in the foreign language is facilitated, and the resources of the classroom are expanded through occasional use of communication media (periodicals, radio, etc.) and such activities as the staging of plays, the use of the school's radio station for broadcasts in foreign languages, festivals, language tables in the dining room, movies, clubs, visits by performing groups, and trips to language events in Boston and at nearby schools and universities. Students are urged to consider opportunities, sponsored by Andover or by other schools, to live and study abroad.

For Andover's School Year Abroad program, see page 45.

### French

Before the outbreak of the French Revolution, French was considered the universal language of the West. It was the language of diplomacy, was already flourishing as a literary medium and, because of its clarity and precision, reflected both French culture and philosophy, influencing the development of democratic institutions in the United States as well as in other countries. The study of French rewards the student with the ability to communicate with French-speaking peoples and to appreciate the importance of order in expression, broadening his views through a growing familiarity with the rich and lively literature and civilization that the language represents.

### German

German is central Europe's principal language, and knowledge of it opens up an understanding of European culture and affairs. Students may learn German to read the works of Goethe, Schiller, Lessing, Kafka, Hesse, Brecht and Grass in their original form, or to follow the arguments of Hegel and Nietzsche, or perhaps to understand more intimately the background of modern socialism and democracy in the world. Many of the most important developments in modern physics, electronics, chemistry and engineering were originally pub-

lished in German, and American businesses are realizing increasingly the importance of personnel able to speak German.

### Italian

The growing popularity of Italian in American schools and colleges reflects a growing awareness of the charm of the Italian language and of the cultural heritage which it serves. Andover's accelerated course for Seniors attracts students with rich experiences in other languages, is conducted in Italian, and has the scope and pace of a course for college freshmen.





## Russian

Approximately forty percent of Russian secondary school students are learning English. A fraction of one percent of American secondary school students study Russian. For cooperation, understanding, and influence, our doctors, diplomats, scientists, and businessmen should be able to communicate with Soviet counterparts in Russian.

Since secondary school is the best place to begin, Andover has established a rich program for our younger as well as our older students, with special attention to professional vocabulary.

## Spanish

The Spanish Department is anxious to help students discover the varied cultural heritage of the Spanish-speaking world through intensive study of

the language, both spoken and written.

It seems particularly important to learn a language spoken everyday by millions of Americans across the U.S. In addition, Hispanic literature, from Cervantes to Borges, has played a vital role in world literature, as attested by the frequency with which Hispanic writers have been awarded the Nobel Prize for Literature.

Students who enter the professions will find Spanish an indispensable tool. But whatever they do, Spanish will be the key to a richer, more rewarding life.

## MODERN FOREIGN LANGUAGES

Each language offers introductory and intermediate courses, with opportunities for acceleration at those levels. Students are then eligible for the following courses:

### *French*

Language Review and Contemporary French Life  
Selected Readings  
Village Français  
French Civilization  
Conversation and Phonetics  
Written Expression  
Literature and Film: French Theatre  
French Literature  
French History  
French Civilization Outside of Europe  
Québec et les Québécois  
Stylistics  
Advanced Placement  
Contemporary Literature

### *German*

Literature, Composition and Conversation  
Literature for Advanced Placement  
Special Topics

### *Italian*

Introductory Course for Seniors, Accelerated

### *Russian*

Literature, Composition and Conversation  
Advanced Literature, Composition and Conversation  
Russian Press  
Literature  
Special Topics  
Russian History and Literature

### *Spanish*

Second and Third Year, Advanced, with winter term in Mexico  
Spanish Language Review  
Aspectos de la Cultura y Civilización del Mundo Hispánico  
Introduction to Literature, with Grammar Review  
Literature and Culture, with Grammar Review  
Literature for Advanced Placement  
Advanced Studies in Literature  
Special Topics: Literature, Sociology, Culture  
Latin American Studies

## PHILOSOPHY AND RELIGIOUS STUDIES

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundations of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered in three groupings corresponding to the three quests and at a variety of levels. All courses are elective and involve four prepared class periods.

### PHILOSOPHY AND RELIGIOUS STUDIES

#### *I. The Search for Meaning*

The Religions of Man

Biblical Narrative: The Personal  
Dimension

Understanding Religion: An In-  
troduction

The New Testament

Views of Human Nature

Existentialism

#### *II. The Search for Justice*

Values Clarification

Ethical Issues in the Sciences

Law and Morality

Nonviolence in Theory and  
Practice

Ethics and Education

In Search of Justice: From  
Socrates to Marx

#### *III. The Search for the Founda- tions of Knowledge*

Proof and Persuasion

Great Philosophers

## SCIENCE

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers Andover students an introductory term-contained course in archaeology in the spring term. The course deals with the prehistoric development of civilization in the four earliest centers: Mexico, Peru, China and the Near East, as well as with archaeological theory and method. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas.

### Biology

Andover provides ample opportunity to develop interest in the biological sciences. In addition to the basic biology courses, the department offers advanced courses in Anatomy and Physiology, Animal Behavior and Advanced Placement Biology. The basic courses give students a general background and an understanding of some of the current trends in biology. Field trips, laboratory work, independent projects, lectures, slides and films are all part of the courses.

Animal Behavior studies some of the wildlife in eastern Massachusetts. The course plans field trips to the coast, salt marshes, lakes and wooded areas within a few hours of Andover.

An advanced biology course prepares older students for the Advanced Placement Examination. The material offered by the basic biology course is reviewed and new concepts, techniques and examples are also presented. The labs give students experience in the techniques of centrifugation, chromatography, electrophoresis, spectrophotometry and statistical analysis.

Informal field trips are held throughout the year for interested students who may or may not be currently enrolled in a biology course. The small zoo in Evans Hall is maintained by students. Its population varies with student interests and the reproductive rate of the animals. In the basement of Evans Hall there is an extensive bird collection on loan from Harvard University and a shell collection.



The Evans Hall greenhouse is a refreshing place to visit during the long winter months. Students grow plants there or start potted plants for their own rooms. An environmental growth chamber is available for those interested in photoperiodism. Independent study is encouraged in all the courses.

### Chemistry

The Chemistry Department offers full-year introductory courses at various levels which prepare students for more advanced work in chemistry.

Many students have undertaken laboratory projects. For example, one student recently investigated the "Miller experiment," the synthesis of amino acids by electric discharge through methane, water vapor and ammonia. Another examined the colors of optically active coordination compounds of cobalt. One student spent a term synthesizing organic compounds and examining their infrared spectra. Others have studied organic qualitative analysis as an introduction to the chemistry of organic functional groups.

Students usually suggest their own experiments,

but they can also adopt and change existing projects in a creative way. A student might design computer programs for chemistry problems, study the use of microchemistry to diminish school laboratory pollution, or explore molecular structures with infrared spectroscopy.

The department has the equipment for the usual experiments in elementary synthesis and analysis, including five Mettler single-pan analytical balances. There are instruments which enlarge the scope of feasible projects — a pH meter, several vacuum tube voltmeters, a Kontes Universal Electrode Kit, a Kern polarimeter, a Bausch and Lomb Spectronic 20 colorimeter and a Perkin-Elmer 700 infrared spectrophotometer. Convenient access to the computer (PDP-11/70, resource time-sharing system) in the Mathematics Department is provided by a teletype terminal located in the chemistry wing of Evans Hall.

### Physics and Astrophysics

The Physics Department offers five introductory courses at various levels of difficulty in order to meet the needs of Andover students. Some representative topics are mechanics, waves, electromagnetism, light, and "modern physics." Laboratory work, classroom demonstrations and extensive problem solving enable students to develop both a qualitative and quantitative understanding of the involved concepts. Also offered are courses including earth science, astronomy, technology, relativity and early quantum theory, and university-level Advanced Placement physics.

The Physics Department operates the Thornton Observatory which houses a research-grade 16-inch reflector, a 6-inch Brashear refractor and six other portable telescopes. These instruments are used in astronomy courses as well as in project work; recent projects have included such areas as solar, lunar and planetary study; astrophotography; computer simulations; and orbit analysis.

Past student projects have included laser transmission of information, holograms, the construction of an electronic calculator, speed of light measurements, determinations of the electronic charge and mass, interferometer measurements, and finding the gravitational constant. Formal and in-



formal contact with the faculty encourages students to examine the interaction of physics and the environment including man, thus hopefully promoting better understanding of the processes of scientific investigation

## Psychology

Individual instructors in the department welcome the opportunity to discuss special interests with any student and have sponsored individual projects such as a study of student values, the evaluation of a social service experience and a program of reading and discussion in a specialized branch of the field

## ARCHAEOLOGY

Archaeology

## SCIENCE

Introductory Physical Science

Introduction to Biological  
Science

Earth Science

Astronomy — the Solar System

Introduction to Energy

Oceanography

Ecology

Introduction to Zoology

Junior Science Honors

Energy and the Future

Applied Human Biology

Biology

Introductory Biology

Anatomy and Physiology

Advanced Placement Biology

Chemistry

Elementary Introductory

Chemistry

Introductory Chemistry

Research in Chemistry

Elementary Organic Chemistry

Stereochemistry

Advanced Placement Chemistry

Honors Introductory Chemistry

— Advanced Placement

Physics

Introductory Physics

College Physics

The Physics of Technology

Advanced Physics

Physics Honors

Relativity and Quantum

Mechanics

Special Science Courses

Animal Behavior

Observational Astronomy

Astronomy — The Universe

Beyond the Solar System

Geology

## PSYCHOLOGY

Human Relations

Human Sexuality



Dr. Charles Abbot, Class of 1891, a solar energy pioneer and head of the Smithsonian Institution for many years, predicted in the early 1940's that solar energy would become the primary source of power when oil and coal were depleted. In 1972 he received his last patent, for a device to convert solar energy into electricity, shortly before his 100th birthday.

## OTHER COURSES

### INTERDISCIPLINARY

Study Skills

Synthesis: A Multidisciplinary

Approach to Problems

Literature of the Quest

Russian Literature in English

Soviet Literature in English

Greek Literature in Translation

Roman Literature in Trans-  
lation

Typing (non-credit)

### PHYSICAL EDUCATION

All Juniors and new Lower

Middlers are required to elect one trimester of PE. 10 in addition to their regular athletic commitment.

Physical Education









## Complementary Programs

Andover's complementary programs combine a number of innovative ideas designed to promote better coordination between public and private education nationally. The concept behind these programs is that of multiple schools. While one school may be accepted as the "home-base" diploma-granting institution, several other institutions may be utilized as complements to this school. Thus far, the multiple schools idea has taken form in several program models which are open to Phillips Academy students as well as students from other schools.

### The Andover Summer Session

The Andover Summer Session is a short intensive academic program in which both innovative and traditional courses are taught in only six weeks. Courses in all subjects and at all levels demand hard work — harder work than most students have ever before experienced. Besides English, modern languages, mathematics, history, and the sciences, the curriculum offers such opportunities as Play Production Workshop, Social Psychology, Great Philosophers, Law and Morality, and Film Workshop, Modern Astronomy, Archaeology and Anthropology, Oceanography and Marine Biology, and Modern Economics.

Other features of the Summer Session are special courses in writing, including the nationally known "Competence in Reading and Writing" (developed at Andover); an expanded ESL Program (English as a Second Language) for foreign students who wish to achieve English fluency; and a Chamber Music Program which provides a unique opportunity for musical students in all combinations of piano, strings, winds, and voice, including individual instruction, small ensemble work, orchestra, and

chorus. The Chamber Music Program is an integral part of the Summer Session with class hours, afternoon activities, mealtimes, etc., the same for music participants as for all other students.

The Summer Session makes use of all the school's facilities and is open to able boys and girls from all parts of the country and abroad. Applicants must be graduates of the 9th, 10th, 11th or 12th grades. The faculty and staff are an expert and diverse group of men and women, some of whom come from Phillips Academy and some from other schools and colleges. A catalog can be obtained by writing:

Jean C. McKee  
Admissions Coordinator  
The Andover Summer Session  
Phillips Academy  
Andover, MA 01810  
Tel. 617/475-3400, ext. 170

### (MS)<sup>2</sup>

The (MS)<sup>2</sup> — Math and Science for Minority Students — program offers minority students a better opportunity to enter technological fields at the college level. (MS)<sup>2</sup> provides three consecutive tuition-free summers of study at Andover. Ninth grade boys and girls are selected for their superior ability and strong interest in mathematics and science. The goal of (MS)<sup>2</sup> is to prepare minority students to compete successfully for careers in science, engineering and medicine. Further information can be obtained by writing:

Elwin Sykes, Director  
(MS)<sup>2</sup> Program  
Phillips Academy  
Andover, MA 01810



### The Short Term Institutes

The Short Term Institutes at Andover are intensive, multi-week courses of study in a single subject, designed to offer high school students a unique residential learning experience. First taught in the fall of 1974, the Institutes are scheduled during the winter and spring of each academic year and are intended to complement a student's home school program, not compete with it.

The average Institute enrolls a dozen students who are together for four hours of class, lab and work each day. Most STI students have been Seniors, but the program is open to any highly recommended student in the 10th, 11th or 12th grades.

While the curriculum changes from year to year, the STI program usually offers study in modern languages, physical and biological sciences, mathematics, and English. However, the actual courses themselves are generally rather innovative. Some of the past Institutes have been Issues in Law, Medicine and Education, Biochemistry, Creative Writing, Visual Studies, Advanced French, Finite Mathematics, Psychology, and Animal Behavior. All Institutes are taught by Phillips Academy faculty members.

STI students live together in a complex of dormitories and have at their disposal all the usual social, athletic and academic facilities of the Academy, as well as access to a variety of cultural facilities in Boston.

Time is scheduled during which STI students can partially maintain modest obligations to their home school classes. Most students are fully caught up within two or three weeks of their return home. Some STI students have been granted college credit for their Institute work, and the Dean of the STI program is happy to fill out college recommendations for any STI graduate.

For further information write:

Jean C. McKee  
Admissions Coordinator  
The Short Term Institutes  
Phillips Academy  
Andover, MA 01810  
Tel. 617/475-3400, ext. 172

Application deadline is December 15 for winter Institutes and March 15 for spring Institutes.





### School Year Abroad

School Year Abroad conducts programs for upper-classmen in France and Spain. Originated by Andover as an off-campus program, it was later jointly sponsored by Andover, Exeter and St. Paul's School. Students may spend a full academic year living with host families while pursuing a course of study under the supervision of teachers from the original sponsoring schools. The program provides full academic credit, permitting students to graduate from Phillips Academy with their own class, as well as the experience of immersion in a foreign culture. Qualified Upper Middlers and Seniors, who will have completed the American history and laboratory sciences requirements, are eligible for School Year Abroad. Phillips Academy tuition, fees and financial aid do not cover the cost of this program. A catalog can be obtained by writing:

Harrison F. McCann, Director  
School Year Abroad  
Phillips Academy  
Andover, MA 01810



### Other Off-Campus Programs

Andover offers several complementary residential programs. The Washington Intern Program, sponsored by Andover and Phillips Exeter Academy, allows a group of Upper Middlers and Seniors to spend the spring term in Washington working in the offices of U.S. Senators and Congressmen. Phillips Academy tuition, fees and financial aid do not cover the cost of this program.

In addition to school-sponsored programs, many Seniors arrange off-campus projects related to their special interests. Some have worked as interns with officials in local government and members of the Massachusetts legislature, while others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative and careful planning of a course of study that will meet diploma requirements and free a block of time during the term.



## Athletics



Archie Bush, Class of 1866, returned from the Civil War to complete his studies and organized a baseball team for Andover's first interscholastic sports competition. When Archie and his friends cut a geometry class to attend a baseball game, Principal Samuel Harvey Taylor, who brooked no nonsense, kicked them out of school. The Trustees rescinded this action years later and granted them all diplomas. Too late for Archie, who had died on his honeymoon trip to Europe.

In sports, as in studies, students are expected to meet basic requirements and are given wide choice in broadening and deepening their skills, interests and dedication in athletics.

A basic evaluation test is given to all new girls and boys to insure that each student has the physical skills necessary for further participation in the athletic program. Special courses are required of those students whose test results indicate a need for attention in the area of physical aptitude. Similarly, non-swimmers are given instruction toward meeting reasonable standards of proficiency. In addition, Juniors and new Lower Middlers take physical education five hours a week for one term, as well as regular athletics.

The regular afternoon athletic program includes a wide variety of offerings in varsity and junior varsity competitive interscholastic sports, in intramural cluster-organized athletics and in instructional and recreational physical activities. Wherever numbers permit, separate interscholastic competitive team programs are created for Junior boys.

Upperclassmen have the opportunity to substitute an activity or project for one term of athletics a year. Each spring the department attempts to offer an evening Senior Life Saving course and a Water Safety Instructors' course, in addition to required athletics, for those swimmers who wish official accreditation.

The school maintains several athletic facilities which include 12 playing fields and 25 tennis courts; the Borden, Memorial and Abbot Gymnasium Complex with swimming and diving pools, basketball and squash courts, weight training room



and other conventional gym spaces, the newly renovated Case Memorial Cage with its indoor track—the Sumner Smith Hockey Rink; the crew boathouse on the Merrimack River; the ski trails and jump at Holt Hill; and finally the Search and Rescue Room in Evans Hall which provides the base of operations for Andover's popular outdoor program.

Phillips Academy is committed to a required athletic program that provides a variety of sports and activities to its students. The Academy discourages overspecialization in sports at this age level; the athletic program is a complement to, not a substitute for, the academic curriculum. The Athletic Department oversees the program and its facilities with the support and advice of the Faculty Athletic Committee and the Student Athletic Advisory Board.

## Health Care

The Isham Infirmary of Phillips Academy is fully licensed as a hospital by the Commonwealth of Massachusetts. The Medical Director, Dr. Roy Weymouth, is a pediatrician specializing in adolescent medicine and is a Fellow of the American Academy of Pediatrics. The Infirmary has an x-ray department with a full-time technician. Basic laboratory services are also available at the Infirmary. Qualified physiotherapists are available either in the Infirmary or Trainer's Room. Graduate nurses are on duty twenty-four hours daily, and additional graduate nurses manage the Outpatient Services from 7:30 a.m. to 8:00 p.m. Isham Infirmary is staffed and equipped to care for most problems, and nearby general hospitals are available for major surgery or serious emergencies.

In addition to the daily outpatient clinic held by the Medical Director, regular clinics are conducted at Isham Infirmary in dermatology, orthopedics, and dentistry. Staff consultants are available in most specialty fields of practice, and full-time clinical psychologists can provide professional counseling.

### FALL TERM

Boys  
Ballet  
Crew  
Cross-Country  
Cycling  
Football  
Forestry  
Jogging  
Karate  
Modern Dance  
Search & Rescue  
Soccer  
Squash  
Tennis  
Yoga  
Girls  
Ballet  
Crew  
Cross-Country  
Cycling  
Field Hockey

Forestry  
Jogging  
Karate  
Modern Dance  
Search & Rescue  
Soccer  
Squash  
Tennis  
Volleyball  
Yoga

### WINTER TERM

Boys  
Ballet  
Basketball  
Gymnastics  
Hockey  
Jogging  
Modern Dance  
Paddle Tennis  
Search & Rescue

Skiing  
Competitive (Alpine and Nordic)  
Recreational (Cross-Country)

Squash  
Swimming  
Track  
Wrestling  
Girls  
Ballet  
Basketball  
Gymnastics  
Jogging  
Modern Dance  
Paddle Tennis  
Search & Rescue  
Skiing

Competitive (Alpine and Nordic)  
Recreational (Cross-Country)

Squash  
Swimming  
Track (non-competitive)

### SPRING TERM

Boys  
Ballet  
Baseball  
Canoeing/Kayaking  
Crew  
Cycling  
Jogging  
Karate  
Lacrosse  
Modern Dance  
Search & Rescue  
Softball  
Squash  
Tennis  
Track  
Yoga

Girls  
Ballet  
Canoeing/Kayaking  
Crew  
Cycling  
Jogging  
Karate  
Lacrosse  
Modern Dance  
Search & Rescue  
Softball  
Tennis  
Track  
Yoga





In the 1840's the widow of Principal Osgood Johnson devoted herself to the care of sick Seminary students at Samaritan House, built and named for that purpose, now a student dormitory. In spite of this, rows of gravestones mark the toll of epidemics. An Academy graduate of 1890 reports that no such care as Widow Johnson's was available to the Academy students of the 1890's: "There was no infirmary. If you were ill, it was nobody's business but your roommate's, who brought you meals from Marland's unappetizing fare."

## CALENDAR 1980-81

### Fall Term

Sept. 21, Sun.	New Students arrive
Sept. 23, Tues.	Old Students return
Sept. 26, Fri.	Classes begin
Nov. 26, Wed.	Thanksgiving Break begins, 12:50 p.m.
Dec. 1, Mon.	Thanksgiving Break ends, 8 p.m.
Dec. 9, Tues.	Fall Term examinations begin
Dec. 13, Sat.	Examinations end — vacation begins, 12 noon

### Winter Term

Jan. 6, Tues.	Students return by 8 p.m.
Jan. 7, Wed.	Classes begin
Mar. 11, Wed.	Winter Term examinations begin
Mar. 14, Sat.	Examinations end — vacation begins, 12 noon

### Spring Term

Mar. 31, Tues.	Students return by 8 p.m.
Apr. 1, Wed.	Classes begin
Jun. 5, Fri.	Spring Term examinations begin
Jun. 10, Wed.	Examinations end, 12 noon
Jun. 11, Thurs.	Commencement

## Admissions

### APPLICATION PROCEDURE

Priority will be given to those candidates who complete the application procedure, including the interview, by February 1. They may expect a decision from the Admissions Committee by March 10. The possibility of admission is considerably lessened for all applicants who complete the process after February 1, and decisions for this group may not be rendered before May 1. It is also possible that 12th Grade and Postgraduate candidates will not be notified until late spring. A deposit of \$100 is required to reserve a place at the time admission is offered to an applicant.



*L to r: Meredith Price, Associate Dean of Admissions; Dalton H. McBee, Admissions Officer; Grace H. Taylor, Administrative Assistant; Joshua L. Miner, Dean of Admissions; Sarah M. Gates, Admissions Officer. Not pictured: Richard C. Griggs, Director of Financial Aid; Jean C. McKee, Admissions Coordinator; Thomas Speers, Admissions Officer; Frank F. DiClemente, Liaison with Alumni Representatives.*

### THE FOUR STEPS FOR APPLICATION

- 1 Submit the Preliminary Application Card** and the non-refundable \$20 fee as soon as possible. (Checks are payable to the Trustees of Phillips Academy.) Candidates must return this card in order to receive final application forms.
- 2 Complete the Personal Interview Requirement.** Candidates must complete the required interview by February 1. Candidates are urged to schedule interviews in either the spring, summer, or early fall of the year before they intend to matriculate. It is in everyone's best interests for the interview to take place as early as practicable. A visit to the Academy is desirable as it gives candidates a chance to have questions answered and to see the school. Please allow two hours for the tour and interview and be sure to dress with the weather in mind. Candidates who cannot visit the Academy are themselves responsible for arranging an interview with an Alumni Representative. (See page 54.)
- 3 Return the Final Application Forms.** Final application forms, mailed in mid-November to candidates who have filed preliminary applications, should be returned no later than 10 days after the end of the fall marking period. Priority consideration is given to applications completed by the advertised deadline of February 1. ("Late applicants" should return forms immediately.)
- 4 Take the Secondary School Admissions Test.** (12th Grade or Postgraduate candidates are not required to take the SSAT. See next page.)

### Secondary School Admissions Test

The Bulletin of Information for Candidates, published by the Educational Testing Service, Princeton NJ 08540, will be sent by Andover to all 1981-82 candidates who have filed a Preliminary Application. This Bulletin describes the Secondary School Admissions Test, which will be given on the following dates:

December 6, 1980	March 7, 1981
January 17, 1981*	April 25, 1981*
June 20, 1981	

\*International administration

Candidates are strongly urged to take the SSAT administered in December, 1980. (The December tests will not be given in foreign countries.) Otherwise, the candidate should take the January, 1981 administration.

### Twelfth Grade or Postgraduate Candidates

Instead of the Secondary School Admissions Test, Senior and Postgraduate candidates must take the Preliminary Scholastic Aptitude Test or the College Board Scholastic Aptitude Tests (C.E.E.B., Box 592, Princeton, NJ 08540). After the test date candidates must ask the College Board, in writing, to send all test results to Phillips Academy. A check or money order for \$3 made out to C.E.E.B. must accompany that request.

Postgraduates are full-fledged members of the Senior Class and are eligible for all school activities. Because of their academic credits, they frequently have maximum flexibility in course selection.

### Whom to Contact at Andover

If you have questions about Andover's admissions or applications procedures, please contact the Admissions Office:

Dean of

Admissions: Joshua L. Miner

Address: Admissions Office  
Phillips Academy  
Andover, Massachusetts 01810

Office hours: Monday through Friday, 8:30 a.m. to 4:30 p.m.  
Saturday, 8:30 a.m. to 12:00 noon

Telephone: 617/475-3400

### Early Decision

Andover will not participate in any early decision plan for admissions in September, 1981.

### "Youth From Every Quarter"

The school's *Constitution*, written in 1778, states that Andover "shall be ever equally open to Youth of requisite qualifications from every quarter." With this principle in mind, the basic requirement for admission to Andover today continues to be evidence of sound character and strong academic achievement. The school is especially interested in candidates who demonstrate maturity and concern for others in addition to high performance in particular studies or activities. Valuing diversity in its student body, the school seeks to bring together a community from all parts of the country and from many nations.

The Admissions Committee selects from over 3,200 candidates the 400 most promising and deserving young people. The school's endowment covers approximately one-third of the cost of an Andover education. Therefore, in fact, every student receives financial aid. In addition, thanks to the generosity of a large number of alumni and friends, further financial assistance is available (see Financial Aid Section, page 53).

## School Costs and Financial Aid

### Tuition 1980-81

Annual tuition for 1980-81 is \$4100 for both boarding students and day students. *Day students must live in Andover, North Andover, North Reading, Methuen or Lawrence.*

### Fees

In addition to tuition, Annual Fees will apply as follows:

	Boarding	Day
Room	\$1100	\$ —
Meals	835	465
Athletics and Activities	145	145
Health	120	90
Sub Total	2200	700
Tuition	4100	4100
Total Cost	\$6300	\$4800

Phillips Academy admits students of any sex, race, color, national and ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of sex, race, color, national and ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs.

To reserve a student's place for a given school year, a deposit in the amount of \$100 must be received by May 1, in the case of a returning student, or by the acceptance deadline in the case of a new admission. This payment applies only as a credit to the school year's final scheduled billing. It is non-refundable under any circumstances.

One-half of the above tuition and fees is payable on August 1, and one-half, less the deposit, on December 1.

An alternative is the use of the Insured Tuition Payment Plan, arranged with a private agency. Information about this alternative and an application form are sent to the parents before the first bill is due.

No rebate will be made against the amount of the installment due on August 1 for any student who for any reason is dismissed or withdrawn after registration in the fall. No rebate will be made against the installment due on December 1 for any student who is dismissed or withdrawn after returning to school at the beginning of the winter trimester.

These charges cover instruction, board, room (including basic furniture), physical training and most athletic privileges, use of laboratory equipment and material, admission to all authorized athletic contests and most authorized entertainments at George Washington Hall or elsewhere on campus, including the Saturday evening motion pictures.

The school charges do not include tutoring, language training, special instruction in music or certain athletics, materials fees for art courses, medical expenses, laundry, textbooks, dues to school organizations or breakage and damage to school property. The school charges do not include cost of participation in the Washington Intern Program, School Year Abroad, or other off-campus programs. The school provides uniforms and most athletic equipment. Students are required to bring their own footwear and urged to bring along whatever other personal athletic equipment they already possess. Bills for items not included in the school charges may be rendered at any time during the school year.

All charges must be paid by their due date in order to assure a student's place at the Academy.



Students with past-due bills may be terminated at any time. The diploma of the Academy will not be awarded to Seniors whose school accounts are not paid in full by June 1.

### Other Expenses

As a rough guide to parents in budgeting for the total expected expenses of each academic year, the following low-average approximations of extras are given:

Travel	According to home location	
Athletic equipment		\$ 80.00
Laundry and cleaning		175.00
Medical Insurance (optional)		35.00
Books and supplies		250.00
Dues, publications and charitable contributions		25.00
Breakage Deposit (refundable)		50.00
Miscellaneous, including spending money		150.00

### Financial Aid: The Andover Plan

Phillips Academy will do its best to see that no admitted student is denied the chance to attend due to inability to finance his or her education here. To that end, the Academy provides over \$1,000,000 in direct financial aid each year, in addition to endowment support for all students. Under the comprehensive Andover Plan, families with incomes of up to \$60,000 a year may qualify for some form of direct assistance from the Academy.

The Andover Plan consists of three parts:

- I. General support of all students' educational cost, principally through income from the school's \$68,000,000 endowment, a product of the generosity of past Andover graduates, parents and friends. This income pays more than 34 percent of the real costs of the educational services Andover actually offers.
- II. Scholarships supplemented, as necessary, by a Student Loan Plan, for qualifying students, ranging from several hundred dollars to total



costs, as needs warrant and funds permit, based upon information provided through the School Scholarship Service in Princeton, N.J. Repayment of low interest Student Loans begins four years after graduation, with an additional four years allowed for completion. Each family indicating a need for assistance on the Preliminary Application Form will be mailed a Parents' Financial Statement which is processed by the School Scholarship Service in Princeton, N.J. *All awards are reviewed annually and a Parents' Financial Statement must be filed each year if continued aid is needed.*

- III A new Parent Loan Plan available, at a modest rate of interest, to families in the \$20,000 to \$60,000 income range, as their needs require, with preference given to students entering 9th and 10th grades. Repayment of these loans begins immediately, but repayment of the principal is deferred during the students' college years and then continues for two additional years.

The combination of general endowment support with the programs of Scholarships for low income students, Scholarships and Student Loans for a broad spectrum of need, and Parent Loans for middle and upper income families gives Andover the flexibility to provide maximum assistance to families seeking an Andover education.

*Requests for aid filed after the January 15 deadline may not be processed in time to be included in the initial allotment of Scholarship funds. Requests filed after January 15 must wait subsequent availability of scholarship monies.*

## Alumni Representatives

While it is advisable from the student's point of view to visit the school, frequently distance renders a visit impractical. When this is the case, the candidate should write or telephone for an interview with the most conveniently located Alumni Representative. (Please see list on page 55.) When you arrange for an interview with an Alumni Representative, please notify the Andover Admissions Office of the date of the interview and the name of the interviewer. This procedure will help us keep your records up to date. A candidate unable to arrange for an Alumni Representative Interview should communicate with the Admissions Office for assistance.

## Admissions Interview Schedule

During the coming school year the representatives from the Administration plan to be in the following cities:

September 23-24	Montreal
October 6-10	San Diego, Los Angeles, San Francisco, Portland
October 13-17	Denver, Minneapolis, Cleveland, Detroit, Chicago
October 20-24	Raleigh, Durham, N.C., Atlanta
October 27-31	Dallas, Houston
November 24	New York City
December 2-3	Washington, D.C.

Candidates who wish to be interviewed in one of these cities should make arrangements in advance. This may be done by notifying our Admissions Office or by calling the local Alumni Representative whose name is preceded by an asterisk.

## ALABAMA

### Birmingham

Miss Jacqueline Carter '72  
P.O. Box 7964 35228  
Robert B. Donworth, Jr. '42  
Bradley, Arant, Rose & White  
Suite 1500, Brown-Marx Bldg.  
2000 First Ave. North 35203  
R. Carl Horn '55  
1601 13th St., South 35205

### Mobile

David F. Dean, M.D. '56  
612 Montclair Way West 36609

## ALASKA

### Anchorage

John K. Brubaker '55  
2110 Otter St. 99504  
Howard S. Reed '45  
6112 Prosperity St. 99504

### Douglas

Peter B. Eakland '63  
P.O. Box 610 99824

### Fairbanks

K. Andre McMullen '66  
5003 Dartmouth Rd. 99701

## ARIZONA

### Litchfield Park

George T. French '29  
P.O. Box 578  
609 North Litchfield Rd. 85340

### Scottsdale

Mrs. William E. Dampier '47  
4721 North 70th St. 85257

### Tucson

John S. Greenway '42  
1634 North Olsen Ave. 85719  
Prof. Richard L. Morse '53  
University of Arizona College of  
Engineering, Dept. of Nuclear  
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### Corona Del Mar

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c/o John Burroughs School  
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John Shepley '42  
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Reginald B. Collier '45  
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William D. Hart, Jr. '36  
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Sven E. Hsia '59  
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120 East End Ave. 10028  
Frederic C. Thomas '46  
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Peter Williams '70  
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Douglas W. Torrington '63  
107 Virginia Dr. 27514  
Peregrine White '29  
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P.O. Box 161  
33 Lombard St.  
EC3P 3HH

## FRANCE

### Paris

Patrick G. Nollat '51  
Compagnie Internationale de  
Services en Informatique  
35 Boulevard Brune  
75680 Cedex 14

## IRAN

### Tehran

Gail F. Borlen  
Post Office Box 3318

## ITALY

### Rome

Mrs. Felix Locus '42  
Salita Dei Parnoli 23 00107

## JAPAN

### Tokyo

S. Steven Yamamoto '51  
University of Tokyo  
Department of Physics  
Bunkyo-ku 113

## KUWAIT

James L. Clunan '56  
Amb. Embassy Kuwait  
c/o Dept. of State  
Washington, DC 20520

## MEXICO

### Mexico City

Florentius Kist '53  
Netherlands Embassy  
P.O. Comenius



John F. Lynch III '70  
Manager Marketing Services  
Alemania 14

## MOROCCO

### Tangier

Joseph A. McPhillips III '54  
The American School of Tangier  
149 Rue Christophe-Colomb

## PUERTO RICO

### Bayamon

Ricardo A. Gonzalez '53  
A13 Argentina St.  
Gardenville 00619

### Guaynabo

Jorge R. Gonzalez '62  
Calle A#15  
Villa Caparro 00657

### San Juan

Samuel C. Dysart, Jr. '46  
c/o South American Restaurants Corp.  
G.P.O. Box 597 00936  
Guillermo E. Gonzalez, Jr. '50  
P.O. Box 11411  
Caparra Heights Station 00922

## SAUDI ARABIA

### Dhahran

Mrs. Julius W. Taylor '47  
ARAMCO  
Box 1444

### Riyadh

Greenleaf H. Smith '63  
c/o American Embassy  
Liaison Office  
APO New York 09038

## SOUTH AMERICA

### Rio De Janeiro Brazil

Mrs. Bruno Azambuja '58  
AV Delfini Moreira 830  
Apto. 102 Leblon

### Quito Ecuador

D. Chadwick Braggiotti '31  
Box 4762 CCI

### Caracas Venezuela

Armando Bacalao '65  
Edit. Greis III Apt. 5-B  
Calle Le Estancia La Campina

## SWITZERLAND

### Pratteln

John R. Thompson '41  
Firestone Schweiz  
4133

### Zurich

Heimeran von Stauffenberg '54  
Im Brachli 56  
8053

## THAILAND

### Bangkok

Piya Chakkaphak '48  
10 Pattanavej 5  
Sukhumvit 71 Rd.  
11

## VIRGIN ISLANDS

### St Thomas

Robert E. Noble '43  
Estate Misgunst Box 5170 00801

## WEST GERMANY

### Berlin

Ernest H. Latham, Jr. '56  
U.S. Information Service  
U.S. Mission Berlin  
Clay Allee 170

### Bochum

Edwin A. Hopkins '56  
Gutenbergstrasse 10  
463

### Hamburg

Friedrich K. Gorner '40  
7 Nonnensteig  
2000 Hamburg 13

### Munich

Alexander J. Belida, Jr. '66  
Franz-Joseph-Strasse 41  
40

# STATISTICAL INFORMATION for 1979-1980



In 1864 Shimeta Neesima left Japan as a stowaway on the clipper ship "Wild Rover" for America and sold his samurai sword for a Chinese New Testament. He was adopted by the shipowner, an Andover Trustee, was christened Joseph Hardy Neesima, graduated from Andover in 1867, later from Amherst and the Andover Theological Seminary, and became the first Japanese to be ordained a Congregationalist minister. Neesima returned to Japan to found The Doshisha, a great university in Kyoto dedicated to Japanese and Christian ideals. Doshisha recently celebrated its 100th birthday.

## Geographical Distribution

Alabama	1	Aruba	1
Alaska	2	Barbados	1
Arizona	4	Bermuda	1
California	48	Canada	5
Colorado	17	Rep. of China	1
Connecticut	86	Peoples Rep. of China	1
Delaware	1	Colombia	2
District of Columbia	14	Costa Rica	1
Florida	18	France	6
Georgia	8	Germany	5
Hawaii	1	Ghana	1
Illinois	37	Great Britain	2
Indiana	1	Hong Kong	2
Iowa	5	Iran	3
Kansas	1	Israel	1
Kentucky	2	Italy	2
Louisiana	4	Japan	1
Maine	29	Korea	2
Maryland	9	Libya	2
Massachusetts	438	Malaysia	1
Michigan	10	Mexico	1
Minnesota	2	Norway	1
Mississippi	3	Saudi Arabia	4
Missouri	7	Singapore	1
Montana	1	South Africa	2
Nevada	1	Spain	2
New Hampshire	24	Switzerland	1
New Jersey	37	Venezuela	3
New Mexico	1	Total Foreign	56
New York	196	Total U.S.	1136
North Carolina	11	TOTAL	1192
Ohio	28		
Oregon	2		
Pennsylvania	17		
Rhode Island	8		
South Carolina	3		
South Dakota	1		
Tennessee	10		
Texas	11		
Utah	2		
Vermont	12		
Virginia	12		
Washington	4		
West Virginia	1		
Wisconsin	4		
Caribbean Islands (U.S.)	2		
Total U.S.	1136		

	Girls	Boys	Total
Seniors	141	251	392
Uppers	148	215	363
Loweres	114	174	288
Juniors	54	95	149
Totals	457	735	1192
Total Boarding Students			968
Total Day Students			224
TOTAL			1192

# College Matriculations for the Class of 1979

The Class of 1979 applied to 152 of  
these colleges and matriculated at 84  
colleges and universities across the  
country.

COLLEGE	AD- MITTED	MATRIC- ULATED	COLLEGE	AD- MITTED	MATRIC- ULATED	COLLEGE	AD- MITTED	MATRIC- ULATED
Ambaret	9	3	Kenyon	5	2	Wellesley	4	2
Arizona State	1	1	Lafayette	5	2	Wesleyan	34	12
Univ. of Arizona	1	1	Lake Forest	4	2	Wheaton (Mass.)	1	1
Barnard	13	6	Lehigh	6	2	Wheaton (Ill.)	1	1
Bates	5	2	Lewis & Clark	6	2	Williams	4	4
Belmont	3	2	Macalester	4	1	Univ. of Wisconsin	8	2
Boston Coll.	7	2	Univ. of Maine	1	1	Yale	34	17
Boston Univ.	9	5	MIT	3	1			
Bowdoin	4	2	Univ. of Massachusetts	17	3			
Brown	43	17	Miami Univ.	2	1			
Bryn Mawr	4	2	Univ. of Michigan	19	6			
California Coll. of Arts & Crafts	1	1	Middlebury	11	4			
Univ. of California			Mount Holyoke	6	2			
Berkeley	23	11	Newcomb	7	3			
San Diego	1	1	Univ. of New Hampshire	6	1			
Santa Cruz	4	1	Univ. of North Carolina	10	5			
Carleton	8	2	Northwestern	44	13			
Carnegie Mellon	5	2	Oberlin	20	5			
Univ. of Chicago	13	2	Ohio Wesleyan	20	5			
Claremont Men's	5	3	Univ. of Oregon	1	1			
Colorado Coll.	1	1	Univ. of Pennsylvania	25	6			
Univ. of Colorado	14	4	Pomona	12	5			
Columbia	17	4	Princeton	23	13			
Connecticut Coll.	21	4	St. Lawrence	4	1			
Cornell	18	11	Skidmore	3	1			
Dartmouth	23	11	Smith	15	4			
Davidson	1	1	Stanford	26	16			
Denison	9	1	Syracuse	8	2			
Univ. of Denver	1	1	Trinity (Conn.)	7	3			
Duke	23	6	Tufts	11	2			
Univ. of Florida	2	2	Tulane	12	3			
Georgetown	23	10	Union	2	1			
Goucher	2	1	U.S. Military Academy	1	1			
Hamilton	4	3	Vanderbilt	13	2			
Hampshire	2	1	Vassar	8	1			
Harvard	46	29	Univ. of Vermont	28	6			
Hebrew	1	1	Univ. of Virginia	15	5			
Holy Cross	1	1						
Univ. of Illinois	1	1						
Iowa	1	1						
Johns Hopkins	15	6						



## College Admissions

Admission to colleges is not based on a student's mere presence at Andover, but is based on how well the student has used this experience. All selective colleges exercise judgments relative to factors over and above academic ability in selecting a freshman class. While some of these factors relate to exceptional talents in one area or another, others are related to diversity in background and educational objectives.

The college admissions picture is entirely different and infinitely more complex now than it was in past decades. Competition for admission to selective colleges is rigorous, and Andover students are encouraged to apply across a range of choices to colleges with varying degrees of selectivity. The one constant in all of this should be a real desire to educate oneself. To this end the College Counseling Office works with the class as a whole and with each candidate to help each one draw up a list of colleges that makes sense.

Phillips Academy seniors go to college well prepared for the academic program and social experience that lies ahead.







## TRUSTEES

DONALD HOLMAN McLEAN, JR. '28  
A.B., LL.B.

*President*

elected 1958

elected President 1968

Andover, Massachusetts

THEODORE RYLAND SIZER

A.B., M.A.T., Ph.D., Ped.D., Litt.D.

*Clerk*

elected 1972

Andover, Massachusetts

CHARLES APPLETON MEYER '35

A.B.

*Treasurer*

elected 1969

elected Treasurer 1976

Lake Forest, Illinois

JOHN USHER MONRO '30

A.B.

elected 1958

Birmingham, Alabama

ROBERT LIVINGSTON IRELAND III '38

A.B., LL.B.

elected 1960

New York, New York

JOHN LEWIS COOPER '31

A.B.

elected 1968

Dover, Massachusetts

GERARD PIEL '33

A.B., D.Sc., Litt.D., L.H.D., LL.D.

elected 1969

New York, New York

WILLIAM WADE BOESCHENSTEIN '44  
S.B.

elected 1971

Perrysburg, Ohio

CAROL HARDIN KIMBALL '53

A.B.

elected 1974

New York, New York

MELVILLE CHAPIN '36

A.B., J.D.

elected 1974

Cambridge, Massachusetts

RICHARD LEE GELB '41

A.B., M.B.A.

elected 1976

New York, New York

STEPHEN BRADNER BURBANK '64

A.B., J.D.

elected 1980

Philadelphia, Pennsylvania

ELIZABETH PARKER POWELL '56

B.A., M.A., M.B.A.

elected 1980

Wellesley Hills, Massachusetts

### Alumni Trustees

ROBERT C. DEAN, JR. '45

B.S., M.S., Sc.D.

elected 1978 for three years

Norwich, Vermont

ALEXANDER B. TROWBRIDGE '47

A.B.

elected 1979 for three years

New Vernon, New Jersey

PHILIP M. DRAKE '43

A.B., LL.B.

elected 1980 for four years

Greenwich, Connecticut

ANNE OLIVER JACKSON '53

A.B.

elected 1980 for four years

Sewickley, Pennsylvania

WILLIAM W. ROSENAU '47

B.A.

Ex Officio as President of the Alumni Association

elected 1980

White Plains, New York

RICHARD C. STARRATT '54

B.A.

Ex Officio as Chairman

of the Alumni Fund

elected 1978

Englewood, New Jersey

### Trustees Emeriti

SUMNER SMITH '08

A.B.

1956-1960

Lincoln, Massachusetts

HENRY WISE HOBSON '10

D.D., LL.D.

1937-1966 (President 1947-1966)

Cincinnati, Ohio

STEPHEN YOUNG HORD '17

A.B.

1963-1968

Lake Forest, Illinois

CHARLES STAFFORD GAGE '21

A.B., A.M.

1952-1976 (Treasurer 1966-1976)

New Haven, Connecticut

PHILIP KIRKHAM ALLEN '29

A.B.

1969-1980

Andover, Massachusetts

## HEADMASTER'S OFFICE

FRIDUCHI EYLAND JONES

*Headmaster for 1986-1987*

A.B. M.A.T. Ph.D. Ph.D.  
(ret.)

PETER QUACHENBUSH MCKEY

*Associate Headmaster - Acting*

*Headmaster - 1987*

*(on leave as Dean of Faculty)*

A.B. Ed.M.

AMC THAMAL ROBINSON

*Administrative Assistant to  
the Headmaster*

## OFFICE OF THE DEAN OF FACULTY

JOHN RICHARDS II

*Acting Dean of Faculty*

A.B. M.A.T.

WILLIAM DANIELIN GRAHAM

*Coordinator of the Faculty*

S.B.

JANE HARRISON MUNROE

*Administrative Assistant to  
the Dean of Faculty*

## OFFICE OF THE DEAN OF STUDIES

PHYLLIS WENDOVER POWELL

*Dean of Studies*

A.B. A.M.

EDMUND HARRY MORTON III

*Registrar*

A.B.

DAVID A. PENNER

*Scheduling Officer*

A.B., M.A.

JEAN C. ROBERTS

*Advisor*

B.S.

## DEANS OF THE RESIDENTIAL CLUSTERS

DAVID OWEN COBB

*Dean of Residence*

A.B. A.M.

CARROLL WESLEY BAILEY

*Abbot Cluster*

A.B., Ph.D.

SUSAN MCINTOSH HLOYD

*Pine Knoll Cluster*

A.B. M.A.T.

JOHN RICHARDS II

*Co-Dean - Rabbit Pond Cluster*

A.B. M.A.T.

CAROL CAMERON RICHARDS

*Co-Dean - Rabbit Pond Cluster*

A.A.

JONATHAN A. STABLEFORD

*West Quadrangle South Cluster*

A.B. M.A.T.

SYLVIA L. THAYER

*Flagstaff Cluster*

A.B.

JAMES ROBERT WILSON

*West Quadrangle North Cluster*

B.S. A.M. Ph.D.

## BUSINESS OFFICE

GEORGE A. NEILSON JR.

*Business Manager*

B.S. M.Ed.

RICHARD CHARLES GRIGGS

*Assistant Business Manager*

A.B.

DONALD HENRY BADE

*Comptroller*

B.B.A.

## OFFICE OF ADMISSIONS AND FINANCIAL AID

JOSHUA LEWIS MINER

*Dean of Admissions*

A.B.

MEREDITH PRICE

*Associate Dean of Admissions*

A.B. M.A.T.

RICHARD CHARLES GRIGGS

*Director of Financial Aid*

A.B.

JEAN C. MCKEE

*Admissions Coordinator*

A.B.

DALETON HUNTER McBEE

*Admissions Officer*

A.B.

SARAH M. GATES

*Admissions Officer*

A.B.

THOMAS G. SPEERS III

*Admissions Officer*

B.A.

FRANK E. DICLEMENTE

*Liaison with Alumni Representatives*

S.B.





## FACULTY

The date following the name indicates the year the instructor joined the Andover faculty. This list reflects the faculty for the 1979-1980 school year.

THEODORE RYLAND SIZER (1972)

*Headmaster on the foundation in honor of John P. Stevens, Jr. '15; Instructor in History and the Social Sciences*

A.B., Yale; M.A.T., Harvard; Ph.D., Harvard; Ped.D., Lawrence University; Litt.D., Union College

MARIE MADELEINE BARATTE

(AA1946)

*Instructor in French*

B.es.I., University de Rennes; A.B., Dunfermline High School; M.A., Edinburgh University

FREDERICK ALMOND PETERSON

(1946)

*Director of Research & Evaluation; Instructor in English on the Elizabeth Milbank Anderson Foundation*

B.A., Yale; M.A., Harvard

PETER QUACKENBUSH McKEE (1947)

*Associate Headmaster; Dean of Faculty; Instructor in Physics on the Donna Brace Ogilvie Teaching Foundation*

B.A., Middlebury; Ed.M., Harvard

DOROTHY Y. JUDD (AA1948)

*Instructor in Spanish*

B.S., William and Mary; M.A., Columbia; M.A., Middlebury

GORDON GILMORE BENSLEY (1949)

*Instructor in Art on the Ammi Wright Lancashire Foundation*

A.B., Yale

JOHN RICHARD LUX (1949)

*Chairman, Mathematics Department; Instructor in Mathematics on the Walter Scott Leeds Teaching Foundation*

B.S., Pennsylvania State University; M.S., Ed., University of Pennsylvania

WILLIAM LOUIS SCHNEIDER (1949)  
*Instructor in Music*  
 Mus. Ed. B., Northwestern

THURLEY T. KITCHIE (AA1950)  
*Assistant Director of Physical Education and Athletics, Instructor in Physical Education*  
 B.S., Trenton State College

FREDERIC ANNESS STOTT (1951)  
*Secretary of the Academy*  
 A.B., Amherst

PHILIP BROWNLIE WELLD (1951)  
*Chairman, Chemistry Department, Instructor in Chemistry and Physics on the George Peabody Foundation*  
 B.E., Yale; M.S., University of Michigan

WILLIAM FRANKLIN GRAHAM (1952)  
*Clerk of the Faculty, Instructor in Mathematics*  
 S.B., University of Michigan

FRED HAROLD HARRISON (1952)  
*Instructor in History and the Social Sciences on the Samuel Hurvay Taylor Foundation*  
 A.B., Yale; A.M., Trinity

JOHN CLAIBORNE McCLEMENT (1952)  
*Instructor in Mathematics on the Cecil F.P. Bancroft Foundation*  
 A.B., Yale; M.Ed., University of Pittsburgh

JOSEPH A. LEWIS MINER III (1952)  
*Dean of Admissions*  
 A.B., Princeton

JAMES HAROLD COUCH (1953)  
*Instructor in Spanish*  
 A.B., M.A., University of Wyoming

SHERMAN FREDERICK DRAKE (1953)  
*Instructor in Mathematics*  
 B.S., U.S. Naval Academy; Ed.M., Boston University

EDMOND EMERSON HAMMOND JR (1953)  
*Instructor in Mathematics on the Jonathan French Teaching Foundation*  
 S.B., Haverford; Sc.M., Brown

LOUIS JOHN HOITSMA JR (1953)  
*Instructor in Mathematics*  
 B.S., Ed.M., William and Mary

ROBERT PENNIMAN HULBURD (1953)  
*Director of Alumni Affairs*  
 A.B., Princeton; A.M., Middlebury

DALTON HUNTER McBEE (1953)  
*Admissions Officer*  
 A.B., Bard College in Columbia University

ALBERT KARL ROEHRIG (1954)  
*Counselor, Instructor in Psychology*  
 A.B., Amherst; Ed.D., Harvard

ROBERT EDWIN LANE (1955)  
*Instructor in Latin and Russian on the Alfred Ernest Stearns Foundation*  
 B.A., M.A., University of California at Berkeley

HAROLD HOLMES OWEN JR (1955)  
*Chairman, Department of Theatre and Dance, Instructor in English and Theatre*  
 A.B., Amherst; M.A., University of New Hampshire

THOMAS JOSEPH REGAN (1955)  
*Instructor in English on the Frederick W. Bemecke Teaching Foundation*  
 B.A., Yale; M.A., Boston University

WILLIAM BIGGS CLIFT JR (1956)  
*Instructor in Music*  
 B.S.M., Capital University Conservatory of Music

FRANK McCORD ECCLES (1956)  
*Instructor in Mathematics*  
 B.S.M.E., Princeton; M.A., Harvard

HARRISON SCHUYLER ROYCE JR (1956)  
*Instructor in History and the Social Sciences*  
 A.B., Amherst; M.I.A., School of International Affairs, Columbia

GERALD SHERTZER (1957)  
*Instructor in Art*  
 B.F.A., M.F.A., Yale

GEORGE WILLIAM BEST (1958)  
*Instructor in Mathematics*  
 B.S., Union College; A.M., Boston University

CLEMENT MORELL (1958)  
*Instructor in Mathematics*  
 B.A., Northern Michigan; M.A., University of Michigan; M.S., University of Illinois

VIRGINIA POWEL (AA1959)  
*Instructor in Art on Abbot Academy Teaching Foundation*  
 B.Des., Newcomb College

JOHN RICHARDS II (1959)  
*Acting Dean of Faculty, Co-Dean of Rabbit Pond Cluster, Instructor in History and the Social Sciences on the Alfred Lawrence Ripley Foundation*  
 A.B., M.A.T., Harvard

JOHN PATTEN CHIVERS (1960)  
*Chairman, German Department, Instructor in German*  
 A.B., Wesleyan; A.M., Middlebury

CARL EDWARD KRLUMPE JR (1960)  
*Instructor in Classics and History*  
 A.B., Wabash College; A.M., Brown

THOMAS REES (1960)  
*Instructor in Chemistry*  
 B.E., M.S., Ph.D., Yale

GEORGE HOWARD EDMONDS (1961)  
*Instructor in English, Coordinator of On-Campus Bicentennial Events*  
 A.B., Amherst; Ed.M., Harvard

MARY SOPHIA MINARD (AA1961)  
*Instructor in History and the Social Sciences*  
 B.A., Smith; M.A.L.S., Wesleyan

ALFRED JAMES COULTHARD (1962)  
*Instructor in Physical Education*  
 S.B., Calvin Coolidge

WAYNE ANDREW FREDERICK (1962)  
*Instructor in History and the Social Sciences on the Emile Belden Cochran Foundation*  
 B.S., Northeast Missouri State University; Ph.M., University of Wisconsin

ROBERT ANDREW LLOYD (1962)  
*Chairman, Art Department, Instructor in Art on the Independence Teaching Foundation Endowment*  
 B.A., Harvard; M. Arch., Harvard Graduate School of Design

ALANSON PERLEY STEVENS III (1962)  
*Instructor in Russian and German*  
 B.A., Dartmouth; M.A., Yale

THOMAS TOLMAN LYONS (1963)  
*Chairman, Department of History and the Social Sciences, Instructor in History and the Social Sciences*  
 B.A., M.A.T., Harvard

BARBARA McDONNELL (1963)  
*Director of the Oliver Wendell  
 Holmes Library*  
 A.B., Boston University; B.L.S.,  
 Simmons

MEREDITH PRICE (1963)  
*Associate Dean of Admissions;  
 Instructor in English*  
 A.B., Amherst; M.A.T., Harvard

JEAN MARY ST. PIERRE (AA1963)  
*Instructor in English*  
 A.B., Wheaton; M.A., Columbia

ALEXANDER ZABRISKIE WARREN  
 (1963)  
*Instructor in Mathematics*  
 A.B., Harvard; M.A.L.S., Wesleyan

CHRISTOPHER CAPEN COOK (1964)  
*Director of the Addison Gallery of  
 American Art; Instructor in Art*  
 A.B., Wesleyan; M.F.A., University  
 of Illinois

DANIEL DRETZKA OLIVIER (1964)  
*Director of School Year Abroad,  
 Rennes, France, through 1979-80;  
 Instructor in French*  
 A.B., Haverford; M.A., Middlebury

VINCENT PASCUCCI (1964)  
*Chairman, Division of Modern  
 Language; Instructor in Classics  
 and Modern Languages on the  
 John Charles Phillips Foundation*  
 A.B., M.A., Columbia; Ph.D.,  
 Brown

AUDREY NYE BENSLEY (AA1965)  
*Instructor in Art*

RONN NELS MINNE (1965)  
*Chairman, Division of Science;  
 Instructor in Chemistry on the  
 Martha Cochran Foundation*  
 B.S., A.M., Northwestern; Ph.D.,  
 Harvard

ANGEL RUBIO Y MAROTO (1965)  
*Chairman, Spanish Department; In-  
 structor in Spanish*  
 Titulo de Bachiller, Titulo del  
 Magisterio, Universitario, Madrid;  
 M.A., Washington University

CRISTINA ALONSO RUBIO (AA1965)  
*Instructor in Dance*  
 Licensed by the Spanish Academy of  
 Performing Arts

NATHANIEL BALDWIN SMITH (1965)  
*Instructor in Mathematics*  
 B.S.E., Princeton; M.A., North-  
 western

HALE STURGES II (1965)  
*Instructor in French*  
 A.B., Harvard; M.A., Middlebury

THOMAS EDWARD CONE III (1966)  
*Chairman, Biology Department; In-  
 structor in Biology*  
 B.S., Trinity; M.A.T., Brown

MICHAEL EDWARD MOSCA (1966)  
*Director of Accounting*  
 B.A., M.B.A., Boston University

DAVID ALBERT PENNER (1966)  
*Scheduling Officer; Instructor in  
 Mathematics*  
 B.A., Amherst; M.A., University of  
 Maryland

JOHN GIBSON TOMLINSON (1966)  
*Director of Physical Plant*  
 B.S., U.S. Military Academy

KENNETH KELLY WISE (1966)  
*Chairman, English Department; In-  
 structor in English on the William  
 M. Newman Teaching Foundation*  
 B.A., Purdue; M.A., Columbia

JAMES LEIGHTON BUNNELL (1967)  
*Director of Summer Session; Instruc-  
 tor in History and the Social  
 Sciences*  
 A.B., University of the South; A.M.,  
 Vanderbilt

JOSEPH BELLEAU WENNIK (1967)  
*Director of Athletics; Instructor in  
 German*  
 B.A., Yale; M.A., Middlebury

HILDA STROOP WHYTE (AA1967)  
*Instructor in Physical Science*  
 B.S., Michigan State University;  
 M.S., Tufts

JAMES ROBERT WILSON (1967)  
*Dean of West Quadrangle North  
 Cluster; Instructor in Chemistry*  
 B.S., Stanford; A.M., Ph.D.,  
 Harvard

SAMUEL IRVINE ALLISON ANDERSON  
 (1968)  
*Instructor in French*  
 A.B., Harvard; Diplome d'etudes,  
 Universite de Paris; A.M., Colum-  
 bia; M.A., Massachusetts; M.A.,  
 Middlebury

DAVID OWEN COBB (1968)  
*Dean of Residence; Instructor in  
 English; Director of Long Range  
 Planning*  
 A.B., University of Maine; A.M.,  
 Middlebury

FRANK LEE HANNAH (1968)  
*Instructor in Mathematics*  
 A.B., A.M., Dartmouth

MARJORIE ALEXANDER HARRISON  
 (AA1968)  
*Instructor in Physical Education;  
 Director of the Work Program*  
 A.B., Connecticut College

ALOYSIUS JOHN HOBAUSZ (1968)  
*Director of the Audio-Visual Center*  
 S.B., Puskas Telecommunication In-  
 stitute, Budapest

NICHOLAS VAN HOUTEN KIP (1968)  
*Chairman, Classics Department;  
 Instructor in Classics*  
 A.B., Princeton; M.A., Trinity

CATHERINE JEANNE KIRKLAND  
 (AA1968)  
*Chairman, French Department; In-  
 structor in French*  
 Licence es Lettres, Maitrise, Sor-  
 bonne

SUSAN McINTOSH LLOYD (AA1968)  
*Dean of Pine Knoll Cluster; Instruc-  
 tor in History and the Social  
 Sciences and Music*  
 A.B., Radcliffe; M.A.T., Harvard

JOHN KENNEDY McMURRAY (1968)  
*Instructor in Art*  
 B.A., Washington and Lee; M.A.T.,  
 Harvard

RICHARD STOCKTON MacNEISH  
 (1968)  
*Director of the Robert S. Peabody  
 Foundation for Archaeology; In-  
 structor in Archaeology*  
 A.B., M.A., Ph.D., University of  
 Chicago

CHARLES EMORY APGAR III (1969)  
*Chairman, Physics Department;  
 Instructor in Physics*  
 A.B., Earlham College; M.A.T.,  
 Brown

SUSAN B. CLARK (AA1969)  
*Instructor in Classics and History*  
 A.B., Swarthmore; M.A., Yale

MARION FINBURY (AA1969)  
*Director of College Counseling*  
 A.B., Vassar

RICHARD CHARLES GRIGGS (AA1969)  
*Assistant Business Manager; Director  
 of Financial Aid*  
 A.B., Princeton



THOMAS FORTY HAMILTON (1969)  
*Instructor in Biology*

B.S., Franklin College, M.S.  
University of Pennsylvania  
M.A.T., Brown

LEONARD N. COHEN, FRYBOROK  
(AA1969)

*Chairman, Russian Department, In-*  
*structor in French and Russian*  
B.A., Swarthmore, M.A., Mid-  
dlebury

CAROL WESLEY BAILY (1970)  
*Dean of Adult Center, Instructor in*  
*English*

A.B., I.D., University of Pittsburgh

PETER JOSEPH PALEYKO (1970)  
*Assistant to the Comptroller*  
S.B., Boston College

FRANCIS MANTH BELLIZIA, IR.  
(1969)

*Acad. Chairman, Department of*  
*Theatre and Dance, Instructor in*  
*Theatre*

A.B., Dartmouth, A.M., Middlebury

PAUL KALKSTEIN (1970)

*Instructor in English*  
A.B., Princeton, M.A.T., Yale

HENRY BOND WIMMER, IR. (1970)  
*Instructor in French*

B.A., Davidson, M.A., Middlebury

THOMAS EVERETT CRABTREE (1971)  
*Instructor in Mathematics*

A.B., Bowdoin, M.A., Harvard  
Ph.D., University of North  
Carolina

ROBERT LEE CRAWFORD (1971)

*College Counselor, Instructor in*  
*History and the Social Sciences*

B.A., Northwestern, S.T.B., The  
General Theological Seminary  
M.A., University of Pennsylvania

ELINOR FRANK BASTIAN (1972)

*Instructor in Biology and Theatre*  
A.B., University of Pittsburgh

GEORGE MA. NAMARA DIX (1972)  
*Instructor in Modern Languages*

A.B., Brown, A.M., Middlebury

BARBARA E. HAWES (AA1972)  
*Instructor in Biology*

A.B., Tufts, M.S., Northeastern

HENRY LINN HERBST (1972)  
*Instructor in French*

A.B., Hamilton, A.M., University of  
Pennsylvania

ALEXANDRA REWIS KUBER MERRILL  
(AA1972)

*Chairman, Psychology Department*  
*Counselor and Instructor in*  
*Psychology*

B.A., Smith, M.A.T., Yale

GEORGE A. NELSON, JR. (1972)  
*Business Manager*

B.S., M.Ed., Boston University

EDWARD IAY SARTON (1972)

*Instructor in Physics*  
B.S.E., Princeton, M.S.E., University  
of Southern California

STEPHEN B. WICKS (AA1972)

*Instructor in Art*

TESHIE BALLARD (1973)

*Instructor in Chemistry and Biology*  
B.A., Sarah Lawrence, M.A.T.,  
Harvard

YOLANDE BAYARD (1973)

*Instructor in French*  
B.S., M.A., Central Connecticut  
State College

ROBERT PETER FERRIN (1973)

*Instructor in Mathematics and*  
*Physics*

B.S., Ph.D., Massachusetts Institute  
of Technology

HOWIN GUSTAV'S QUATTLEBAUM III  
(1973)

*Co-Director of Washington Intern*  
*Program, Instructor in History and*  
*the Social Sciences*

A.B., Harvard, M.A., Ph.D., Uni-  
versity of California

NANCY FAUST SIZER (1973)

*Instructor in History and the Social*  
*Sciences*

B.A., Wellesley, M.A., Harvard

ELWIN SYKES (1973)

*Director of IMSI<sup>2</sup> Program, Instruc-*  
*tor in English on the John H*  
*Porter, Jr. Bicentennial*  
*Instructorship*

A.B., M.A., Harvard

MARY E. VAN DUSEN (1973)

*Instructor in Remedial Language*  
A.B., Wellesley, M.Ed., Lesley

PRISCILLA KEENE BELLIZIA (1974)

*House Counselor*  
A.B., Bates, M.A.T., Brown

HELEN SCHNEIDER BEST (1974)

*House Counselor*  
B.S., Seattle University

CAROLYN B. BRECHER (1974)

*Instructor in Modern Dance, Assis-*  
*tant in Audio-Visual*  
A.B., Bard College

PATRICIA HOPE EDMONDS (1974)

*Director of Foundations, Support*  
*House Counselor*

A.B., Mount Holyoke, M.A.T.,  
Radcliffe

CHRISTOPHER JUDIE GURRY (1974)

*Instructor in Physical Education and*  
*History and the Social Sciences*  
A.B., Harvard

JUDITH ADAMS HAMILTON (1974)

*Dean of Flagstaff Cluster*  
A.B., Tusculum College

SALLY CHAMPLIN HERBST (1974)

*House Counselor*  
A.B., Mount Holyoke

MARC DANA KOOLEN (1974)

*Instructor in Biology*  
B.S., St. Lawrence

JEAN CRAWFORD MCKEE (1974)

*Admissions Coordinator*  
B.A., Middlebury

ELAINE SPATZ RABINOWITZ (1974)

*Instructor in Painting*  
B.A., Antioch, M.F.A., Tufts  
University and Museum School

NATALIE GILLINGHAM SCHORR  
(1974)

*Instructor in French*  
B.A., McGill, d.e.s., Aix-Marseille,  
M.A., University of Pennsylvania

WILLIAM E. THOMAS (1974)

*Chairman, Music Department, In-*  
*structor in Music*  
B.A., Oberlin, M.F.A., Pennsylvania  
State University

BARBARA LLE WICKS (1974)

*House Counselor*

DONALD HENRY BADE (1975)

*Comptroller*  
B.B.A., University of Wisconsin

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*Director of Public Information*  
*House Counselor*  
A.B., Bryn Mawr

DAVID EMMETT IRWIN, JR. (1975)

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B.M., Florida State University,  
M.Mus., Yale Music School



- HERBERT HARRY MORTON III (1975)  
*Registrar; Instructor in Mathematics*  
A.B., Dartmouth
- CONSTANCE HALL STROHECKER (1975)  
*Director of Abbot Alunnae Affairs*  
SANDRA URIE THORPE (1975)  
*Assistant to Director of the Bicentennial Campaign*  
A.B., Stanford
- RICHARD H. WILSON, JR. (1975)  
*Instructor in Music*  
B.A., Harvard; M.Mus., New England Conservatory of Music
- VINCENT B.J. AVERY (1976)  
*Chairman, Department of Philosophy and Religious Studies; Instructor in Religion and Philosophy*  
S.T.L., Ph.D., Academia Alphon-siana, Rome
- ELAINE RANKIN BAILEY (1976)  
*Associate Cluster Dean*  
B.A., William and Mary
- SARAH ANNE DOOLITTLE (1976)  
*Instructor in Physical Education*  
B.S.Ed., Northeastern
- JANETTE ELIZABETH HANNAH (1976)  
*House Counselor*  
M.A., Edinburgh University
- SUZANNE EDDY KIP (1976)  
*House Counselor*
- MICHAEL ALLEN LOPES (1976)  
*Instructor in English*  
B.A., University of California at Berkeley; M.A., State University of New York at Stony Brook
- HARRISON FAIRFIELD McCANN (1976)  
*President, School Year Abroad*  
B.A., Williams; M.A., Middlebury
- PHYLLIS WENDOVER POWELL (1976)  
*Dean of Studies; Instructor in English and History*  
B.A., Wellesley; M.A., Harvard
- CAROL CAMERON RICHARDS (1976)  
*Co-Dean, Rabbit Pond Cluster; House Counselor*  
A.A., Bennett
- JONATHAN A. STABLEFORD (1976)  
*Dean of West Quadrangle South Cluster; Instructor in English*  
B.A., Williams; M.A.T., Wesleyan
- REBECCA MILLER SYKES (1976)  
*House Counselor*  
A.B., Radcliffe
- ANN WICKINS CALDWELL (1977)  
*Associate Secretary of the Academy and Associate Director of the Bicentennial Campaign*  
A.B., University of Michigan
- EVERETT E. GENDLER (1977)  
*Jewish Chaplain; Instructor in Religion and Philosophy*  
B.A., University of Chicago; M.H.L., Jewish Theological Seminary
- MARTHA JOHNSON BEATTIE (1977)  
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A.B., Dartmouth
- LOUIS M. BERNIERI (1977)  
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A.B., Harvard
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*Co-Director of Washington Intern Program*  
B.A., Dartmouth
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A.B., Wheaton; M.A., Columbia
- JAMES L. SHELDON (1977)  
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- DIANE L. SOUVAINE (1977)  
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- CAROLE L. TAPPAN (1977)  
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- CHRISTOPHER R.H. WALTER (1977)  
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- JANE WHEELER (1977)  
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- CHARLES ALLEN WILLAND (1977)  
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- J. PHILIP ZAEDER (1977)  
*Protestant Chaplain; Instructor in English*  
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- KATHERINE WAYNICK BASTIAN (1978)  
*House Counselor*  
A.B., Meredith
- JEANNE E. BUSSIÈRE (1978)  
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- DAVID M. GRAHAM (1978)  
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- MARY M. GRAHAM (1978)  
*House Counselor*
- SUSAN BROWNELL HODGSON (1978)  
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- MARY J. McCARTHY (1978)  
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A.A., Bav Path Junior College; B.A., William Paterson College
- SUSAN R. McCASLIN (1978)  
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B.A., Smith; M.T.S., Harvard Divinity School
- DIANA I. McNAB (1978)  
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- GERALDINA MATTIA (1978)  
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 B.A., Washington & Jefferson;  
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ALEXANDER L. THEROUX (1978)  
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 English and Writer in Residence*  
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*Assistant to the Headmaster; In-  
 structor in Classics; Director of the  
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 Sciences*  
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J. RUFUS CALEB (1979)  
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 Hopkins

ANDREW J. CLINE (1979)  
*Instructor in Mathematics*  
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ALBERT COONS (1979)  
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 B.A., Johns Hopkins

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 A.B., Colby; M.Div., The Episcopal  
 Divinity School; M.A.L.S.,  
 Wesleyan

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 Michigan

ANN H. HARPER (1979)  
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 B.A., University of Pennsylvania;  
 M.A., University of Chicago

MICHAEL D. PETERSON (1979)  
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 B.A., M.A., California State Uni-  
 versity; M.L.S., University of  
 Maryland

CARMEL RODRIGUEZ (1979)  
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 B.A., California State University;  
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CYNTHIA ASHLEY STABLEFORD (1979)  
*Associate Cluster Dean; House  
 Counselor*  
 A.B., Vassar

STEPHEN SULLIVAN (1979)  
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 B.A., Wesleyan

SYLVIA LOUISE THAYER (1979)  
*Dean of Abbot Cluster*  
 B.A., Wellesley

SHIRLEY A. VEENEMA (1979)  
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 B.A., Bucknell; M.A. Glassboro  
 State College

SHELLY M. WEISS (1979)  
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 Social Functions*  
 B.A., Dickinson

ROY E. WEYMOUTH, JR. (1979)  
*Medical Director*  
 A.B., Bowdoin; M.D., Tufts Univer-  
 sity School of Medicine

NANCY G. WILSON (1979)  
*Associate Cluster Dean*  
 B.S., Lesley

EDWARD C. YASUNA (1979)  
*Instructor in English*  
 B.A., Columbia; M.A., University of  
 Michigan; Ph.D., Ohio State  
 University

## TEACHING FELLOWS

MARK GEORGE ALBURGER  
*Teaching Fellow in Music*  
 A.B., Swarthmore

BARBARA MERYL COHEN  
*Teaching Fellow in English*  
 B.A., Yale

EVAN HUGO DeLUCIA  
*Teaching Fellow in Biology*  
 B.A., Bennington

SARAH MacMILLAN GATES  
*Teaching Fellow in Admissions*  
 B.A., Bowdoin

ANDREW G. LEVCHUK  
*Teaching Fellow in Mathematics*  
 B.A., University of Chicago

WILLIAM ARMSTRONG POWEL III  
*Teaching Fellow in French*  
 A.B., Stanford

HELENE CATHERINE RASSIAS  
*Teaching Fellow in French*  
 B.A., Amherst

JOHN M. SANDERSON  
*Teaching Fellow in Physics*  
 B.A., Middlebury

SARA LORING SMITH-PETERSON  
*Teaching Fellow in Drama on Abbot  
 Academy Association*  
 B.A., University of New Hampshire

JANE PAVER SOYSTER  
*Teaching Fellow in History and the  
 Social Sciences on Elizabeth Rogers  
 Teaching Fellowship*  
 A.B., A.M., Stanford

VICTOR SVEC  
*Teaching Fellow in Russian on Abbot  
 Academy Association*  
 B.A., University of Washington

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*Teaching Fellow in Spanish*  
 B.A., Tufts

MAUREEN ELLEN WALSH  
*Teaching Fellow in English*  
 B.A., Wesleyan

PETER S. WELLS  
*Teaching Fellow in English on Joseph  
 R.W. Dodge Teaching Fellowship*  
 B.A., Williams

## FACULTY ASSOCIATES

- YOLANDA R. BALLOU  
*Library Cataloguer*  
B.A., University of Massachusetts;  
M.L.S., Simmons
- LINDA HATHAWAY BUNZA  
*Manager of The Andover Review*  
A.B., Bates; M.A., Hartford  
Seminary Foundation
- MARGARET F. COUCH  
*Assistant Cataloguer*  
A.B., Wheaton
- PAULA SCALERA CROSS  
*Library Collection Developer*  
B.A., Salem State; M.L.S., University of Rhode Island
- MARJORIE CROSSLEY, R.N.  
*Nurse, Isham Infirmary*  
Lawrence General Hospital School of Nursing
- KATHLEEN GONSALVES  
*Reference Librarian*  
S.B., M.L.S., Simmons
- EILEEN HALL  
*Administrator, Isham Infirmary*
- GLORIA HOLBROOK, R.N.  
*Nurse, Isham Infirmary*  
Lawrence General Hospital School of Nursing
- MARIE-LUISA KRIVOBOK, R.N.  
*Hostess at Cooley House*  
R.N., Sankt Hedwig Klinik, Mannheim, W. Germany
- ELIZABETH KRUMPE  
*Hostess at Cooley House*  
B.A., Radcliffe; M.A., Harvard
- JEANNETTE GRANGER MUNROE  
*Hostess at the Underwood Room*
- VIRGINIA MURPHY, R.N.  
*Nurse, Isham Infirmary*  
St. John's Hospital School of Nursing
- THOMAS B. POOL  
*Director of Food Services*
- ANN P. ROYCE  
*Assistant Director, Audio-Visual Center*
- CAROLYN D. SKELTON  
*School Organist*  
B.A., Hastings College; M.M., New England Conservatory of Music

- ALBERTA B. STAMMERS  
*Assistant Director, Language Laboratory; Assistant to Pine Knoll Cluster Dean*  
Licenza Liceale Classica from Liceo Classico
- JOAN VERRETTE, R.N.  
*Supervisor, Inpatient Department, Isham Infirmary*  
St. John's Hospital School of Nursing
- JOAN WALSH, R.D.H.  
*Dental Hygienist*  
Forsyth Dental School
- SALLY SLADE WARNER  
*Assistant in Music Department; Academy Carillonneur*  
Ch.M., A.A.G.O., American Guild of Organists
- LOUIS J. ZUPPARDI  
*Radiology Technologist*  
R.T., R.M.T., Lawrence General Hospital
- LOUISE ZURAWEL, R.N.  
*Assistant Supervisor, Outpatient Department, Isham Infirmary*  
St. Luke's Hospital, New Bedford

## ABBOT ACADEMY EMERITI

- HELEN BEAN JUTHE  
*Instructor in History, Emerita*  
Altamonte Springs, Fla. 1920-1938
- MARY CARPENTER DAKE  
*Instructor in Physical Education, Emerita*  
Green Valley, Ariz. 1925-1945
- M. DOROTHY BAKER  
*Instructor in English, Emerita*  
Bath, England 1945-1950
- DOROTHEA WILKINSON  
*Instructor in English, Emerita*  
Fredericton, N.B., Canada 1939-1953
- MARGUERITE CAPEN HEARSEY  
*Headmistress, Emerita*  
Wellesley, Mass. 1936-1955
- ANNA ROTH  
*Instructor in History, Emerita*  
Franklin, Mass. 1942-1956
- MILDRED A. HATCH  
*Instructor in Latin, Emerita*  
Chester, N.H. 1946-1961
- MARJORIE F. STEVENS  
*Instructor in Mathematics, Emerita*  
Andover, Mass. 1945-1961
- ALICE CURTISS SWEENEY  
*Instructor in English, Emerita*  
Andover, Mass. 1935-1961
- HOPE COOLIDGE  
*Director of Food & Housing, Emerita*  
Concord, Mass. 1938-1962
- RAYMOND COON  
*Instructor in Music, Emeritus*  
Andover, Mass. 1946-1962
- EDITH TEMPLE JONES  
*Instructor in French, Emerita*  
Fairhaven, Vt. 1954-1967
- GERMAINE AROSA  
*Instructor in French, Emerita*  
Essex, Mass. 1945-1969
- GARDNER SUTTON  
*Comptroller, Emeritus*  
Cambridge, Mass. 1947-1971

## PHILLIPS ACADEMY EMERITI

ROBERT LAWRENCE DAKE S B  
*Instructor in Chemistry Emeritus*  
Coco Valley Ariz 1921-1961

MICHAEL RUVANT MATONI Ph D  
*Instructor in History Emeritus*  
Davie's Beach Fla 1937-1962

ELIZABETH LAURE A B  
*Director of the Library Emerita*  
Williamsburg Va 1929-1963

EMORY HILBY BAKERD A B  
*Instructor in English Emerita*  
Gatherburg Md 1929-1964

HELYTHURSTON HUMPHRIES A B  
*Instructor in French Emerita*  
Naples Fla 1937-1964

JOHN EDWARD BARN A M  
*Instructor in Physics Emeritus*  
Andover Mass 1923-1965

ALBERT C. AHAM BALDWIN A B  
Ed D  
*Instructor in Religion and School  
Ministry Emeritus*  
Andover Mass 1930-1968

EDMUND GORDON SCHLYLER  
B A B  
*Instructor in Mathematics Emeritus*  
Winter Park Fla 1941-1968

JOHN BROMHAM HAWES Ed M  
*Instructor in English and Assistant  
Dean Emeritus*  
Weston Vt 1933-36 1939-70

HARTFETT HARDING HAYES JR A B  
*Director of the Addison Gallery of  
American Art and Instructor in  
Art Emerita*  
Andover Mass 1933-1969

EDWARD JOHNSON S B Sc D  
*Director of the Robert S. Peabody  
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Archaeology Emeritus*  
Andover Mass 1936-1969

WALTER DIETRICH A B  
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Piedmont Grove Calif 1941-1970

LEONARD FRANK JAMES A M  
*Instructor in History Emeritus*  
Medomak Me 1932-1970

FRANCIS BERTRAND MCCARTHY A B  
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AUSTON HURD CHASE Ph D  
*Instructor in Greek Latin and  
History Emeritus*  
Berwick Me 1934-1971

GEORGE KNIGHT SANBORN S B  
*Instructor in Mathematics and  
Biology Emeritus*  
Kennebunkport Me 1928-1972

JAMES HOOVER GRAY Des I  
*Instructor in French Emeritus*  
North Andover Mass 1935-1972

ROBERT WHITTEMORE SIDES A B  
*Director of Admissions and  
Instructor in Mathematics and  
Navigation Emeritus*  
Marblehead Mass 1938-1972

RICHARD VALENTINE HEALY P E  
*Director of Physical Plant Emeritus*  
Winchester Mass 1956-1972

ALLAN GEORGE GILLINGHAM Ph D  
*Instructor in Latin and Greek  
Emeritus*  
Berwick Me 1947-1974

ROBERT EDWARD MAYNARD S B  
*Instructor in Mathematics Emeritus*  
Andover Mass 1931-1974

WILLIAM RUSSELL BENNETT JR A B  
*Registrar Emeritus*  
Kennebunk Me 1950-1974

SIMEON HYDE JR A M  
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Faculty Associate Headmaster  
Emeritus*  
Albuquerque N M 1950-1974

JAMES RUTHVEN ADRIANCE A B  
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Chapel Hill N C 1934-1975

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*Instructor in Physical Education  
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Andover Mass 1935-1975

HART DAY HEAVITT A B  
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Providence R I 1938-1975

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North Andover Mass 1938-1975

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Andover Mass 1947-1976

ANNE LISE WITTEN M A  
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Montreal Quebec Canada  
1955-1976

WILLIAM ABBOT MUNROE A B  
*Associate Treasurer Emeritus*  
Andover Mass 1960-1976

WILLIAM JOHN BUTHNER M A  
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Andover Mass 1958-1977

HARPER FOLIANSBEE Ed M  
*Instructor in Biology Emeritus*  
Fitzwilliam N H 1940-1977

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Rochester N H 1936-1977

STEPHEN STANLEY SOROTA B S  
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Centerville Mass 1936-1978

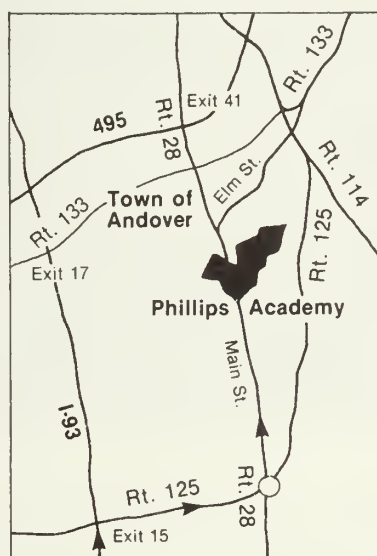
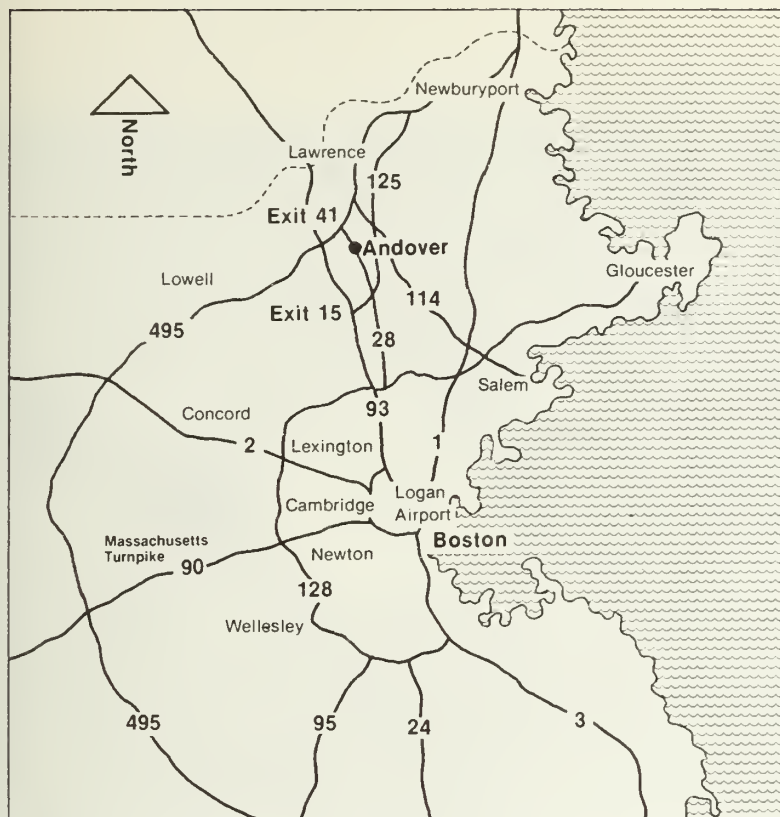
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Boston Mass 1936-1979

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Bath Me 1938-1979

FRANCIS GORDON SOULE M D  
F A C P  
*Medical Director Emeritus*  
Sandwich Mass 1970-1979



## TRAVELING TO ANDOVER



If traveling by car from Boston, take Route 93 north for about 19 miles. Take Exit 15, then turn right (east) on Route 125 for 2 miles. Turn right onto Route 28 and go north about 4 miles to the Andover campus. Turn right at the Bell Tower on the corner of Route 28 and Salem Street. The Admissions Office is the first building on the right.

If driving from Logan Airport, follow the signs to Boston via the Sumner Tunnel and follow Route 93 north signs.

From Route 495 north or south take the exit marked Andover and proceed south on Route 28 through the town of Andover. The Phillips Academy campus is approximately one mile south of the Andover center. Turn left on Salem Street, by the Bell Tower.

The Trombly Motor Coach Service runs buses to Andover from the Continental Trailways Bus Terminal, 10 Park Square, Boston. Buses run approximately every hour, 7:30 a.m.-11:00 p.m., Monday through Saturday, and from 10:30 a.m. to 11:00 p.m. on Sunday. Visitors should call the bus terminal in Boston, 482-6220, for up-to-date information.

### Inns and Motels in the Area

**Andover Inn**  
Chapel Avenue, Andover  
Telephone 617/475-5903

**Sheraton Rolling Green Motor Inn**  
Lowell Street, Andover  
Telephone 617/475-5400

**Merrimack Valley Motor Inn**  
Route 125, Chickering Road  
North Andover  
Telephone 617/688-1851



ANDOVER

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1980-81

Andover  
Course of Study

PHILLIPS ACADEMY



# Course of Study 1980-1981

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## Course of Study

The curriculum of Phillips Academy comprises a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Placement in the year-level of a subject may be independent of a student's grade in school; through advanced placement at entrance or accelerated courses, many students fulfill requirements ahead of the normal year, thereby gaining increased opportunity for college-level or other elective courses. Instruction is given in all subjects usually required for entrance to higher institutions.

Classroom groups are small enough to permit individual attention, and students are placed in sections fitted to their skill level. Accelerated sequences and advanced courses offer particularly able and well-prepared students opportunity to progress at a rate commensurate with their ability and ambition. Most departments offer courses beyond the level of preparation for college.

For full membership in a given class, students should have credit for the work of the lower classes or its equivalent. However, students are rated as members of a given class if their deficiencies for full membership in it do not exceed a certain number of trimester courses.

Every student is assigned to an Academic Advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements, and the student's particular interests. Students should familiarize themselves with the Academy's basic curriculum—both its requirements and its flexibility.

Members of the Upper Middle and Senior classes should become aware of the entrance requirements of the colleges they may wish to enter.

### The Trimester Plan

The academic year is separated into three trimesters. There are two types of weekly class schedules: one during which classes meet only Monday through Friday, and the other during which classes also meet on Saturday morning. There are roughly equal numbers of these five and six-day weeks in each trimester. Within a given week classes are scheduled to meet ac-

cording to varying patterns: some for four fifty-minute periods; others for five such periods; and a few seminar and studio courses for two two-hour blocks. Many departments offer year-long courses as well as those which are term-contained (completed in one trimester). The diploma requirements are stated in terms of full-year courses or trimester courses, depending on the academic area involved.

### Special Courses in Foreign Languages

Special courses covering the work of two years in one are open to qualified Seniors in German, Greek, Italian, Latin, Russian, and Spanish. These 10-20 courses are designed primarily for students of proven linguistic ability wishing to begin a second or third language in their Senior year, and therefore are not recommended for students of limited language ability. Entering Seniors with no previous foreign language experience must pass a 10-20 course as a diploma requirement.

### Accelerated Sequences and Advanced Placement

The Andover curriculum offers accelerated sequences in most departments. It provides special programs in Latin, Greek, and the modern foreign languages, designed to cover four years' work in three—or five years' work in four. The programs are open, on invitation of the departments, to especially able and ambitious students.

A large number of Phillips Academy students take College Board Advanced Placement Tests in May to establish advanced placement in college courses or credit toward the college degree.

Advanced Placement Examinations are offered in: American History, Art History, Chemistry, English, European History, French, German, Latin, Mathematics, Music, Physics, Spanish, and Studio Art (portfolio).

### Independent Projects

With the approval of the Dean of Studies and in accordance with requirements established by the Faculty, a student may substitute independent work for some portion of the normal course load. An independent project may replace a given course for up to



three trimesters of a student's stay at the Academy, or may replace all courses during a given trimester. In either case, the work is done under the supervision of a member of the Faculty.

### Off-Campus Programs and Projects

The school offers several off-campus residential programs. The *Washington Intern Program*, in which Andover joins with Exeter, allows a group of Upper Middlers and Seniors to spend the Spring Term living together in Washington and working in the offices of U.S. Senators and Congressmen. (See *History* 35.)

Students enrolled in Spanish at the third level or higher may elect a residential Winter Term of study in Mexico. (See *Spanish* 35.)

Selected students of French may spend the Winter term in Antibes, France, attending local schools and residing with a family in the city.

In addition to school-sponsored programs, the trimester plan provides an opportunity for individual Seniors to arrange off-campus projects related to their special interests. Some Seniors have worked as interns with officials in local government and members of the Massachusetts legislature. Others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative in the investigation of opportunities and careful planning of a course of study that will meet diploma requirements and also free a block of time during the appropriate term.

### School Year Abroad

Students may elect to spend their Upper Middle or Senior Year studying in France or Spain with *School Year Abroad*, originated as an off-campus program by Andover, later joined as a sponsor by Exeter and St. Paul's. Students live with host families while pursuing a course of study under the supervision of teachers from the three original sponsoring schools. Although *School Year Abroad* is now an independent program, it provides students with courses that earn full academic credit at Andover and with the experience of immersion in a foreign culture. Students wishing to participate should consult their Academic Advisor and the *School Year Abroad* office (located in Samuel Phillips Hall on the Phillips Academy campus) for guidance in the selection of courses for the years prior to and following the year abroad.

### Summer Session

The *Andover Summer Session* is a six-week academic enrichment program for boys and girls of high school age. Students who wish to receive Phillips Academy credit for courses taken at the *Andover Summer Session* must receive prior approval from the chairman of the department involved.

### Short Term Institutes

The *Andover Short Term Institutes* provide an opportunity for students and teachers from secondary day schools to study one subject intensively during several weeks at Andover. Diploma candidates at Phillips Academy may apply for *Short Term Institutes*, provided that they are able to make individual arrangements for credit through the Dean of Studies.

### Complementary Schools Project

The *Complementary Schools Project* sponsors a wide variety of off-campus community internships available to Phillips Academy students in good standing. Students who wish to participate in a community internship in another school should apply to the Director of the CSP, after having secured credit arrangements with the Dean of Studies and approval from parents, Cluster Dean, and House Counselor.

## Planning a Program of Studies at Andover

The following is designed to help Andover students and their parents to understand the curriculum, and to show the major decisions, and their consequences, which face students at each stage of the four-year academic program.

### Workload

All new students are advised to carry only a normal program of five courses each term in the Junior, Lower Middle, and Upper Middle years. The requirement for the Senior year is four courses or the equivalent of the fourth course—that is, independent work equivalent to a course. Upper Middlers and Seniors may elect to adjust their workload by carry-

ing four courses or five courses in any trimester during their last two years as long as the total for the two years comes to twenty-seven trimester units.

### Academic Advising

Each student has an Academic Advisor; this member of the Faculty is responsible for counseling the student in the planning of his or her course of study at Andover. The Advisor meets with the student during the Orientation period prior to the opening of school in September to review the course selections which the student has made during the previous Summer or Spring. The Advisor must approve the selections for the Fall Trimester at this time, and those for the Winter and Spring Trimesters, respectively, during conferences held later in the year.

Within the diploma requirements, programs of study are determined by the student's long-range needs and aspirations—insofar as these can be identified. These needs may include college and career plans, strengths and weaknesses as revealed by previous performance and aptitude tests, and character and personal development.

In addition to the Academic Advisor, the House Counselor or Day Student Counselor must also approve the student's course selection for each trimester. From time to time during the academic year, the Counselor will report to parents concerning the student's growth and progress. Late each spring students in the three lower classes and their respective Academic Advisors will prepare a selection of courses for the coming year; a copy of this selection will be mailed to parents in June.

Although the student is ultimately responsible for the selection of his courses, the Academic Advisor will welcome any information and suggestions that parents may wish to offer.

### Arena Day

Students register for their courses and selections in an arena setting before each term. Following meetings with their Academic Advisors, students make certain that the desired courses have sections scheduled that permit a conflict-free, workable daily program. Entrance into the arena is by classes and in numerical order according to a randomly chosen, pre-assigned number. Students are advised to have alternate selections in mind in the event that some of the desired

sections are full; enrollment is on a first-come, first-served basis.

### Diploma Requirements

The basic diploma requirement is the satisfactory completion of a four-year secondary school program, of which at least three trimesters must be at Andover; the student must be in good standing (not on Probation or under Suspension) at the time of graduation. A student who has been dismissed is ineligible for a diploma unless readmitted.

A student's program normally includes nine trimester units of a foreign language, eight of mathematics, three trimester units of United States History, plus an additional trimester course in history taken at the Upper Middle or Senior level, a full-year course in a laboratory science, one trimester of art (usually *Visual Studies-Art 10*), one trimester of music (usually *The Nature of Music-Music 20*), and six trimesters of English, these to include a year-long course of competence in writing and reading and a three-trimester sequence of general literature. In order to be eligible for a diploma all students must satisfy the swim requirement of the Department of Athletics. Certain diploma requirements vary with the class level at which the student enters Phillips Academy. Entering Juniors and Lower Middlers must take a trimester course in physical education in addition to required athletics. Entering Upper Middlers need take only one trimester of either art or music at the Academy. Entering Seniors are not required to take either art or music. Some modifications of the language requirement are made for entering Upper Middlers and Seniors. Entering Seniors with no previous foreign language experience must pass a 10-20 course in a foreign language. A Senior must pass a minimum of twelve graded trimester courses during the Senior year. Seniors must have passing trimester grades for all courses taken during their Spring Trimester. Independent Projects are counted as graded courses.

Credits (trimester units) required for diploma are:

For Entering Juniors	54
For Entering Lowers	51
For Entering Uppers	48
For Entering Seniors	48

### Newly Admitted Students

Students entering for their first year are sent place-



ment material, including some forms for present teachers to complete and a self-administered diagnostic test in elementary algebra. These items are used by the Academy to aid in proper placement or recommendation of course levels. New students are also asked to complete to the best of their ability a Course Selection form, indicating the courses that they wish to take during the coming year. Although the placement material may alter somewhat a student's preliminary selections, it is helpful, for planning purposes, to know the levels that each student thinks he is ready to enter.

### The Main Choices at Each Stage of a Four-Year Program

While a student's program of studies is adapted each year to his changing situation, the *future consequences* of each course should be noted, for certain choices in one year open the way to later options and may close the door to others.

### JUNIOR YEAR

Each trimester a Junior must take five courses, only one of which may be a Pass/Fail course. Students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring.

In selecting courses, students are reminded to check the diploma requirements. A Junior's program should resemble the following outline:

1. Math—begin sequence (usually *Mathematics 10*)
2. Foreign Language—begin sequence (usually a year-long course at the 10-level);
3. English—*English 10* (elective);
4. Elective [Art, Social Science, History, another Math, another Language, Music, Performing Arts, Physical Education, RelPhil, Science, Interdisciplinary.]
5. Elective [Art, Social Science, History, another Math, another Language, Music, Performing Arts, Physical Education, RelPhil, Science, Interdisciplinary.]

### LOWER MIDDLE YEAR

Each trimester a Lower Middler must take five courses, only one of which may be a Pass/Fail course. New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. A few students take the CEEB Achievement Tests during their Lower

Middle year. In selecting courses, students are reminded to check the diploma requirements. A Lower's program should resemble the following outline:

#### New Students

1. Math—(usually *Mathematics 19* or *Mathematics 20*);
2. Foreign Language—enter the sequence by placement of the department;
3. English—begin sequence (*Competence*);
4. Elective [Art, Classics, History, another Math, another Language, Music, Performing Arts, Physical Education, RelPhil, Science, Interdisciplinary.]
5. Elective [Art, Classics, History, another Math, another Language, Music, Performing Arts, Physical Education, RelPhil, Science, Interdisciplinary.]

#### Returning Students

1. Math—continue the sequence (usually *Mathematics 20 (T2), 32*);
2. Foreign Language—continue the sequence;
3. English—continue sequence;
4. Elective [Art, Classics, History, another Math, another Language, Music, Performing Arts, RelPhil, Science, Interdisciplinary.]
5. Elective [Art, Classics, History, another Math, another Language, Music, Performing Arts, RelPhil, Science, Interdisciplinary.]

#### N.B.

Students planning to be off-campus for a term (*e.g., Term in Mexico, Washington Intern Program*, etc.) should make sure they have no year-long courses during that year. Students wishing to participate in the *School Year Abroad Program* during their Upper Middle year should discuss these plans with their Academic Advisor and seek guidance for the selection of courses for the Lower Middle Year.

### UPPER MIDDLE YEAR

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 units in blocks of four or five courses per trimester. A Pass/Fail course may be elected as a fifth course only.

New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. Many students take the CEEB Preliminary Scholastic Aptitude Tests in the Fall; all take the CEEB Scholastic Aptitude Tests in the Winter; and many take the CEEB Achievement Tests in the Spring of their Upper Middle year. Some also take the CEEB Advanced Placement Tests in the Spring of their Upper Middle Year. As a matter of

general policy Academic Advisors encourage "depth" in the selection of courses for the Upper Middle Year. Most students satisfy their United States History requirement during their Upper Year. In selecting courses students are reminded to check the diploma requirements. An Upper's program should resemble the following outline:

#### New Students

1. Math—(usually *Mathematics 30-31* or 35);
2. Foreign Language—enter the sequence by placement of the department;
3. English—begin sequence (*Competence*);
4. Elective [Archaeology, Art, Classics, another English, Social Science,
5. Elective [History, another Math, another Language, Music, Performing Arts, RelPhil, Science, Interdisciplinary.]

#### Returning Students

1. Math—continue the sequence (usually *Mathematics 35 (T2)*);
2. Foreign Language—continue the sequence;
3. English—continue the sequence (usually *Lit B (T2)* *Lit C*);
4. History—usually *History 35 (T2)*, *36 (The United States)*;
5. Elective [Archaeology, Art, Classics, another English, Social Science, History, another Math, another Language, Music, Performing Arts, RelPhil, Science, Interdisciplinary.]

#### N.B.

Students wishing to take an *Off-Campus Independent Project* for a trimester of their Senior Year must have no year-long courses during their Senior Year.

#### SENIOR YEAR

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 trimester units in blocks of four or five courses per trimester. A Pass/Fail course may be elected only as a fifth course, however, an Independent Project, though marked on a Pass/Fail basis is counted as a graded course.

A Senior must pass a minimum of twelve graded trimester courses during the Senior Year. Seniors must have passing trimester grades for all courses taken during their Spring Trimester. Many Seniors retake the CEEB Scholastic Aptitude Tests in Decem-

ber and the CEEB Achievement Tests in January, and the CEEB Advanced Placement Tests in May. In selecting courses students are reminded to check the diploma requirements. A Senior's program should resemble the following outline:

#### New Students

1. Math—enter the sequence by placement of the department, if the requirement is not yet satisfied (usually *Mathematics 40*);
2. Foreign Language—enter the sequence by placement of the department if the requirement is not yet satisfied;
3. English—usually *English 300-123*;
4. Elective [Archaeology, Art, Classics, another English, Social Science,
5. Elective [History, another Math, a 10-20 Language, Music, Performing Arts, RelPhil, Science, Interdisciplinary.]

#### Returning Students

Usually most diploma requirements are satisfied. Careful selection of electives for continued depth in the student's chosen areas is encouraged.

#### Transferring and Dropping Courses

To transfer or drop a course, a student must obtain an official transfer slip from his or her Academic Advisor. This slip is then taken as soon as possible to the Scheduling Officer in George Washington Hall. Transfers into term-contained courses must take place during the first six calendar class days of the term. No course may be dropped after the end of the fourth week of classes of any term. Students wishing to drop year-long or T2 courses prior to the normal end of the course may do so only by gaining the approval of a group of five: the Department Chairman, the Dean of Studies, the student's House Counselor, Academic Advisor, and Instructor. Credit is granted at the discretion of the Department Chairman and only if the student is passing the course at the time it is dropped and only for that portion completed. Year-long and T2 courses are considered as long-term commitments.

#### Attendance

Students are expected to attend all academic classes.

Instructors, if approached in advance, are permitted (but not required) to excuse students from a class meeting if the absence from that meeting will not add



to weekend time. Only Cluster Deans may give permission to extend weekend time, and they may do so without consulting Instructors.

### Failed Courses

In most cases, continuing students may attempt to receive credit for a failed course by taking a make-up examination. Spring Term Senior Failures may be made up only following Commencement.

### College Entrance Examination Board Test Dates

Tests will be held on campus in 1980-81 as follows:

October 21	PSAT/NMSQT ( <i>Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test</i> )
November 1	SAT/ACH
December 6	SAT/ACH
January 24	SAT/ACH
May 2	SAT/ACH
June 6	SAT/ACH
May 18-22	AP ( <i>Advanced Placement Examinations</i> )

## Key to Course Designation

A course number ending in "0" denotes a year-long course (Example: *Math 10-0*). A number ending "123" indicates that the course is term-contained, but sequential, and may be taken for one, two, or three terms (Example: *Art 21-123*). A number ending in a single digit "1", "2", or "3" indicates a course that is term-contained, but one that may be taken only once (Example: *History 422-2*). The designations 1, 2, and 3 indicate the trimesters during which the course is offered: 1 = Fall; 2 = Winter; 3 = Spring. Some courses require a two-term commitment; they are indicated by a "(T2)" following the course name (Example: *Physics 52-12 Advanced Physics (T2)*). Check carefully each course description for any other limitations: Prerequisites, permission of instructor or department chairman required, etc.

Immediately below each course number is a 4-digit number in parentheses. This identification number (often referred to as the "computer number") is used for data processing files and is required when a student registers for courses. The final digit of the computer number has roughly the same meaning as the last digit of the course number:

Final Digit:	Indicates:
0	Year-long course
1	Course offered in Fall Trimester
2	Course offered in Winter Trimester
3	Course offered in Spring Trimester
4	T2 course offered in Fall and Winter
5	T2 course offered in Winter and Spring

## Course Descriptions

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers a term-contained course as an elective.

**25-3 Archaeology**

(2253) Four prepared classes. Open to Upper Middlers and Seniors. Limit 15 students. The course explores the methods archaeologists use to reconstruct prehistoric societies and to test general statements concerning how and why these societies came to be the way they were. In doing this, several major transformations in human society are considered, beginning with the society of the earliest men and ending with the first civilizations. Lecture and class discussions are supplemented by visual aids and work with archaeological specimens. A brief excavation may be conducted locally. (Dr. Wheeler)

### Art

The diploma requirement in Art is as follows: entering Juniors and Lowers must take a trimester course in a Studio Art; an entering Upper must take a trimester course in a Studio Art or Music at the Academy; neither a Pass/Fail course nor an Art History Course is accepted as fulfilling the requirement. The basic course, *Visual Studies*, covers a broad range of material, is open to students of all abilities and experience, and is a prerequisite to almost all elective courses in Art. Exemption from this prerequisite is granted only on the basis of a portfolio of work judged satisfactory by the Chairman of the Department in collaboration with the teacher of the course which the student desires to enter. An acceptable portfolio should contain examples of two-dimensional work, three-dimensional work (slides or photographs are acceptable), and photography.

The College Entrance Examination Board offers students the opportunity to gain Advanced Placement in Studio Art in many colleges and Art Schools, thus enabling a student to by-pass basic design courses. Students must submit a portfolio of slides and original work to Princeton in May. Students interested in Advanced Placement should enroll in

*Art 315-1* and two subsequent terms in Art.

Students wishing to apply for an independent project in photography will not be eligible until they have taken *Art 12*, *Art 26*, and two terms of *Art 306*.

Students should expect to help pay for art materials.

#### INTRODUCTORY STUDIO COURSES

**10-1 Visual Studies**

(0101) Five prepared class periods. In its emphasis on observation, interpretation, and organization, (0102) the basic course is designed to supply an understanding of contemporary surroundings. (0103) Along with discussion of design problems, the student receives experience in photography, drawing, two-dimensional design, and three-dimensional construction. Previous experience in art is not required.

**11-0 Visual Studies for Juniors**

(0110) Four prepared periods. The course will cover drawing, color, photography, and an intensive exposure to the Addison Gallery of American Art. The course will fulfill the diploma requirement in art and will serve as the equivalent of *Art 10* as a prerequisite for other Art courses.

**12-1 Introductory Photography**

(0121) Prerequisite: *Visual Studies*. An introduction to basic out-of-doors photography, the course covers fundamentals of exposure, developing and printmaking. A camera (35 mm. or 2 $\frac{1}{4}$ ) (0123) with manually controlled speed, aperture and focus is required; a light meter is not necessary. Emphasis is on both darkroom technique and aesthetic quality. This course may be bypassed by students with previous experience through the presentation of a portfolio.

**14-1 Introductory Ceramics**

(0141) Pass/Fail. Four classes per week plus an evening studio. Limit of ten students. Basic techniques of hand-building, wheel-throwing, and glazing. Emphasis on the sculptural as well as the functional possibilities of clay. At least one raku firing each term, or a similar special project. (Mrs. Bensley)

#### INTERMEDIATE STUDIO COURSES

Unless otherwise noted, the intermediate courses consist of four prepared classes each week. *Visual Studies (Art 10)* is a

prerequisite for all intermediate courses.

## 20—123 Drawing

(0201) Prerequisite: *Visual Studies (Art 10)*. A course designed to develop observation and drawing skills in several media, based on the assumption that drawing is an end in itself as well as a skill basic to other media. Included: one life-drawing session each week.

## 21—123 Animation

(0211) Prerequisite: *Visual Studies (Art 10)*. An introduction to the art of illusion of motion through shooting still images frame by frame with 16mm sound motion picture film, with emphasis on the relationship to the sound track in structuring the finished product. Given in collaboration with the Music Department, the course may interest either the art student who wishes to explore the visual possibilities of the medium or the music student who wishes to find a vehicle for an original composition. (Mr. McMurray)

## 23—123 Two-Dimensional Design

(0231) Prerequisite: *Visual Studies (Art 10)*. The course deals with one's ability to manipulate those elements most associated with the picture plane: color, line, shape, texture, and composition of flat materials. Work includes: 1) color—free studies and collages dealing with the structural and expressive nature of color; 2) drawing—exercises using pencil, pen, and brush, figure and landscape drawing; and 3) figure-ground—expanding the structural and illusionary aspects of figure-ground as an end in itself and as a basis for graphic and advertising design. (Mr. Shertzer)

## 24—1 Three-Dimensional Design

(0241) Prerequisite: *Visual Studies (Art 10)*. Woodworking, welding, furniture design, toy-making, sculpture—all these activities share principles of design which can be more broadly applied to architecture, city and regional planning. The course introduces the wood and metal shops via a series of assigned projects, each of which demonstrates a basic set of design principles. (Mr. Lloyd)

## 25—123 Intermediate Ceramics

(0251) Prerequisite: *Visual Studies (Art 10)*. (*Introductory Ceramics (Art 11)* preferred but not required.) The course stresses combining techniques and the development of basic skills toward new forms. Participation in glaze preparation and firings. (Mrs. Bensley)

## 26—123 Intermediate Photography

(0261) Prerequisite: *Art 12*. An extension of *Introductory Photography*, the course goes deeper into technical proficiency and aesthetic quality. Technical aspects include metering techniques, black and white filters, exposure and printing contrast controls, various developing styles and darkroom deviations. A camera and light meter are required. The student will be exposed to the works of various photographers so that he may gain a better sense of his own photographic style and identity.

## HISTORY OF ART COURSES

### 40—2 History of Art: Painting and Sculpture

(0402) Four prepared class periods. For Uppers and Seniors. Although a survey of Western Art from the cave painter to contemporary, the course examines four present-day directions by studying the historical styles as roots leading up to our time, with an emphasis on the 20th Century. Students will be expected to produce a slidetape on an artist or style or their choice. (Mr. Bensley)

### 41—3 History of Art: Architecture

(0413) Four prepared class periods. For Uppers and Seniors. A survey of architecture and engineering from priestly civilizations to the present, the course emphasizes the architectural style as an expressive outgrowth of the culture that produced it. Students will be expected to produce a slidetape on an architect or style of their choice. Combined with *Art 40-2*, this course should prepare students for the Advanced Placement in Art History. (Mr. Bensley)

## ADVANCED STUDIO COURSES

*Visual Studies (Art 10)* is a prerequisite for all advanced courses.

### 300—123 Graphics and Photography

(0701) Prerequisites: *Visual Studies (Art 10)* and *Introductory Photography (Art 12)*. Applying photography to graphic arts, particularly through photo-silkscreen. Individual experimentation is emphasized in an attempt to carry the expressive force of photography beyond darkroom techniques. (Mr. McMurray)

### 302—123 Painting

(0721) Prerequisite: *Visual Studies (Art 10)*. An introduction to the basic elements and techniques of painting in oils and acrylics. Specific problems are assigned to study the fundamentals of color, form, composition and space in painting, as well as



to encourage the student's individual expression. Class critique and discussions, slides, reproductions, films and occasional field trips are also part of the course. Previous experience is helpful but not necessary; students are encouraged to sign up for the full year if possible. (Mrs. Rabinowitz)

### 303-2 Filmmaking

(0732) Prerequisite: *Visual Studies (Art 10)* and *Introductory Photography (Art 12)*. This course combines viewing theatrical, documentary, and art films for discussion and criticism with the production of individual or group student films in silent super-8. Course work will include developing film ideas, script-writing, shooting, cutting, editing, and class critiques. (Mr. Sheldon)

### 304-123 Advanced Ceramics

(0741) Prerequisite: *Visual Studies (Art 10)*. For those who are seriously interested in the total operation from design to execution. Hand-building, wheel-throwing, glazemaking (and some chemical analysis), responsibility for loading and firing electric, gas, raku, and salt kilns. Assigned reading and occasional field trips. (Mrs. Bensley)

### 305-123 Print Shop

(0751) Prerequisite: *Visual Studies (Art 10)*. Relief (0752) Painting, designing, cutting, and printing linoleum and woodblocks in editions. Silkscreen: making stencils for the screen, experimenting with color, and printing imaginative compositions as well as message-oriented posters. Intaglio: starting with dry-point and learning the processes of etching and printing in a workshop atmosphere.

### 306 Advanced Photography

Prerequisites: *Introductory Photography (Art 12)* and *Intermediate Photography (Art 26)*.

306-I-1 Photojournalism. A photograph is a multi-dimensional experience. It can serve to recall

306-I-3 persons or events; it can inform, inspire, and raise questions. It is a way of sharing an experience and one's relationship to it. The subject of

this course is taking photographs that are deeply and personally felt and which, at the same time, can communicate to a wide audience. The commentary and images of several celebrated photographers will be presented for discussion. Projects will include individual photographs, essays, picture stories, journals, biographies, etc. While independent work is expected, some assignments will be given. (Mr. Wicks)

306-II-1 Large Format Photography. The special qualities of the large camera open up a new world of

306-II-3 image making which alters the relationship of photographer to subject and creates options different from the smaller formats. View camera swings and tilts, perspective and depth of field control, sheet film processing, advanced metering and exposure methods, and techniques of the fine photographic print are covered. A survey of the aesthetic and stylistic development of photography in the nineteenth and twentieth centuries is taught. Students explore the many possible approaches to their own photography in this historical context. Extensive use is made of the Addison Gallery's collection of original photographs. 4 × 5 cameras are provided. (Mr. Sheldon)

306-III-2 Studio Photography. Concentrating on portraiture and fashion photography, studio strobes are used to achieve controlled lighting. Utilizing professional models from Boston agencies, the course is an introduction to commercial photography. (Mr. Bensley)

306-IV-2 Photoillustration. Illustration in photography involves applying the imagination, using manipulation of exposure and printing techniques to produce images which are preconceived, not necessarily observed. The course includes group critiques, assigned readings, exposure to professional work, and occasional field trips. (Ms. McCarthy)

### 308-23 Sculpture

(0882) Prerequisite: *Visual Studies (Art 10)*. Offers an opportunity to work in practically every material available to the sculptor today, including wood, stone, metal, plastics, plaster, and others. It is therefore possible for students to develop into sculpture concepts discovered in *Visual Studies (Art 10)* or *Three-Dimensional Design (Art 24)* as well as ideas drawn from their own experience. Some outstanding work of recent classes include the "avocado" by Seymour House '73, a thirty-foot welded construction which is now a permanent addition to the Addison Gallery, a standing steel figure by Jamie Morgan '73, which was on display in the Headmaster's Office, and others. Individual criticism is stressed. (Mr. Shertzer)

### 309-123 Kinetics

(0891) Prerequisite: *Visual Studies (Art 10)*. *Three-Dimensional Design (Art 24)* is recommended. (0892) A search for the aesthetics of movement. (0893) Individual inventiveness is stressed as students



pursue projects directed toward devices that produce implied or real motion. Self-perpetuated problem-solving situations become one of the prime values and objectives of the course. (Mr. McMurray)

### 310—123 Architecture

- (0901) Prerequisite: *Visual Studies (Art 10)*. For Uppers and Seniors. A design course based on previous work in *Visual Studies (Art 10)* and/or *Three-Dimensional Design (Art 24)*

which relates the basic elements of surface and volume to the design of shelter, the efficient combination of human functions, and the organization of construction. At least one term involves large-scale projects constructed in the wood-working shop. Examples from recent years include the Search and Rescue climbing tower near Rabbit Pond and the playground at a local elementary school. (Mr. Lloyd)

### 311—3 Contemporary Communications

(0913) Four prepared class periods. The course examines some of the bases of communication between and among people. Material includes fiction, non-fiction, poetry, drama, motion pictures, and the visual arts. Prerequisites: Successful completion of a course in art, music, or theatre. The course engages in group projects aimed at public presentation. (Mr. Owen and Mr. Lloyd)

### 314—3 Calligraphy: The Art of Lettering by Hand

(0943) Prerequisite: *Visual Studies (Art 10)*. A course designed to develop basic techniques of fine hand lettering beginning with Roman capitals and tracing the historical developments of letter construction, integrating form and function. Practical applications can range from simple matter quotations to illuminated manuscript work. (Mrs. Quattlebaum)

### 315—1 Advanced Placement in Studio Art

(0951) Prerequisite: *Visual Studies (Art 10)*. For Seniors, or for Uppers by permission of the Instructor. Four prepared class periods, Fall term only, to help students with special interest in art or design prepare a portfolio for Advanced Placement. The course will concentrate on preparing work for the "breadth" category of the AP, but will also entail planning courses or projects to fulfill the sections entitled "quality" and "depth." A student enrolled in this course should plan to take at least one art course or project in Winter and Spring terms. (Mr. Lloyd)

## The Classics

The foreign language diploma requirement is competence at the third-year level of a modern or ancient language. Such competence in Latin or Greek is usually established by completing the ninth trimester. Able students may fulfill the requirement at the end of the eighth, or even the seventh trimester, by passing a special examination set by the department.

Through the study of Greek and Latin the Department of Classics offers students a direct entry into Greek literature, which is still unsurpassed in excellence, and into Latin, which, as the universal language of church, court, and scholars throughout the formative years of modern Europe, can rightly be termed the mother tongue of Western Civilization, and the surest index to its meaning.

Students have traditionally studied Latin before going on to the study of Greek. However, Greek is equally appropriate as a first language since it is not more difficult than Latin. The Greek alphabet is easily mastered in the first two class meetings, and students quickly discover that the Greek language has poetic and expressive qualities which stimulate the imagination and illuminate man's political and intellectual development.

In addition to language courses, there are survey courses which require no knowledge of Greek and Latin. Through them the department makes available to all Andover students a broad introduction to Classical civilization: history, literature, mythology, epic, and etymology.

### GREEK COURSES

#### 10—0 Greek, First Level

(5010) Five prepared class periods. The course introduces the student directly to the Classical Greek of Periclean Athens through a series of readings which present not only the vocabulary, forms and syntax of the language but also the thoughts, feelings and actions that exemplify the Greek genius. Though the first few selections are necessarily adapted to simple form, within the first term students are reading authentic Plato and Aristophanes, within the year Euripides and Homer, and quickly enough at that to encompass a complete episode in a day's work. The text is *Reading Greek* (Cambridge), by the Joint Association of Classical Teachers.

**10-20—0 Greek, First and Second Level, Accelerated**

(5020) Five prepared class periods. The course is open to Seniors and Uppers. It covers in one year the essential material of *Greek 10* and *Greek 20*: basic forms and structure, along with ample selected readings from Xenophon and Plato, as an introduction to Greek literature. The text is Chase and Phillips, *A New Introduction to Greek* (Harvard University Press).

**13—1 Introduction to Greek**

(5031) Four prepared class periods. The course is for students whose curiosity for the Greek language and literature has been aroused by their studies in other areas. For students who plan some day to study Russian or German, this course provides an excellent introduction into the intricacies of a highly inflected language. The student is also treated to an inside preview of a literature which, over the centuries, has provided inspiration and models for the literature of the Western World. It is a term-contained course, but students wishing to continue with Greek will have the opportunity to do so.

**20—0 Greek, Second Level**

(5010) Five prepared class periods. The course continues the format of *Greek 10* with further systematic development of reading skills and control of vocabulary, forms and syntax through the medium of more advanced selections from the Greek masterpieces, always with the purpose of understanding the spirit of the people that produced them. The text is the second in the *Reading Greek* series by the Joint Association of Classical Teachers.

**30—0 Greek: *Iliad* and *Odyssey***

(5050) Four prepared class periods. Selected books of the *Iliad* and the *Odyssey*, and sometimes a play of Euripides. Students examine the nature of tragedy, heroism, and self-discovery. The texts are Benner's *Selections from Homer's Iliad* (Naiburg), and Homer's *Odyssey I-XII*, ed. Stanford (St. Martin's Press).

**40—123 Greek: Historians, Tragedians, Lyric Poets**

(5061) Four prepared class periods. In the Fall Term ancient concepts of justice and morality are examined through the works of Herodotus and Thucydides. Human tragedy is explored in a play of Sophocles or Euripides in the Winter Term. The Spring Term is devoted to the study of emotion and self-expression in the Greek lyric poets. The texts are Chase and Phillips, *A New Greek Reader* (Harvard University Press), Euripides *Medea*, ed. Elliott (Oxford), Sophocles *Oedipus Tyrannus*, ed. Jebb (Cambridge), and Campbell's *Greek Latin Vocabulary* (St. Martin's Press).

**LATIN COURSES**

**10—0 Latin, First Level**

(5110) Five prepared class periods. The purpose of the course is to prepare students for general reading in Latin. To that end, thorough training is given in the basic vocabulary, forms and syntax of the language (including all participles, infinitives and subjunctives) along with practice in sight reading. The student is also introduced to Roman history and to the relationship of Latin to the English language.

**10-20—0 Latin, First and Second Level, Accelerated**

(5120) Five prepared class periods. For Upper Middlers and Seniors. A year-long accelerated introductory course covering two years in one. Texts are the same as those for *Latin 10* and *Latin 20*.

**13—1 Introduction to Latin**

(5141) Four prepared class periods. The course is for students seeking an introduction to the Latin language, or those whose studies in other languages (including English) have aroused their curiosity about the workings of languages (grammar, syntax and vocabulary). It offers special profit and fascination to students of French, Spanish, and Italian, since it illuminates much of what they already know by acquainting them with the mother language. For students who plan some day to study Russian or German it serves as an introduction to the workings of highly inflected languages. It is a term-contained course, but students wishing to continue with Latin will have the opportunity to do so.

**20—0 Selected Latin Prose Authors**

(5150) Five prepared class periods. During the first term, the course gives a thorough review of the fundamentals of Latin grammar and begins the reading of Caesar. Caesar's account of his campaigns provides for the student insight into the problems of political ambition and international intrigue. These ideas are developed and reexamined in additional readings from Nepos and Livy. There is practice in sight translation and prose composition. The texts are Buehner's *An Intermediate Latin Reader* (Independent School Press) and Colby's *Review Latin Grammar* (Independent School Press).

**20A—0 Selected Latin Prose Authors (Formerly *Latin 21—0*.)**

(5160) Five prepared periods. For new students whose first-year Latin course may have been less complete than *Latin 10*. The course follows the same outline as *Latin 20*, but more slowly.

### 30—0 Cicero, Sallust; Vergil's Aeneid, Book II

(5170) Four prepared class periods. Through the writings of Cicero and a variety of other authors, students learn to read Latin prose with increasing ease. The course presents a picture of Cicero's life and times and compares the political unrest and maneuvering of his time with that of our own. The literary importance of Cicero as the creator of a prose style which had a dominant influence on the literature of Europe for centuries is assessed. In the Spring Term the student is introduced to Roman poetry through readings in Vergil's *Aeneid*. The student will begin to understand how Vergil, as heir to the Homeric tradition, gave to epic and to Western poetry in the generations that followed him their definitive form. The text is Gillingham and Barrett's *Latin: Our Living Heritage, Book III* (Charles Merrill Books).

### 30A—0 Cicero; Vergil's Aeneid, Book II (Formerly (5180) *Latin 31—0*.)

Five prepared class periods. The course follows the same outline as *Latin 30*, but begins with a more extensive review of the work covered in the second year. It is intended for new students who have had two years of Latin but little or no experience in reading Caesar.

### 40—123 Vergil's Aeneid

(5191) Four prepared class periods. Through a (5192) thoughtful reading of Vergil's *Aeneid*, students (5193) are introduced to the great classical traditions of epic poetry. The literary form and beautiful, symbolic content of the *Aeneid* become familiar as the model and inspiration of our western poetical heritage. Homer, as Vergil's well-loved and frequently emulated model, is read in translation; the comparison and contrast of the Homeric tradition with Vergil provide a clear understanding of the Latin author's techniques and purpose.

### 50—123 Livy and Tacitus; Roman Comedy; Horace and Catullus

(5201) and Catullus  
(5202) Four prepared class periods, one unprepared (5203) period devoted to sight work. The course includes preparation for the Latin Advanced Placement Examination. In the Fall Term, selections from Livy's *Histories* give students insight into the foundations of some of the Western World's ideas of government and law. Selections from Tacitus' *Annals* are read as a contrast because of their studied depiction of human excess in tyranny and degradation. In the Winter Term, Roman comedy treats students to the bases of European high comedy and farce. In the Spring Term, the students begin to understand the Roman concepts of moderation versus excess through the writings of the poet Horace, described by a Twentieth Century psychiatrist as "a type of the perfectly

integrated personality." The lyric poetry of Catullus reveals the perennial personal emotions found as well in the First Century BC as now.

## CLASSICS COURSES

### 21—1 Classical Civilization: Greece

(5321) Four prepared class periods. For Juniors and

21—3 Lower Middlers. The course surveys the

(5323) achievements of the ancient Greeks from

Homeric times through Alexander the Great, including their impact on later civilizations in such areas as literature, art, philosophy, drama, government and science. The case-study method is employed to enhance skills of analysis, discussion and presenting ideas on paper, and to focus the material on two comprehensive themes: the search for a single unifying explanation of the physical universe, and the conflict between ideal justice and law-court verdicts.

### 22—2 Classical Civilization: Rome

(5332) Four prepared class periods. For Juniors and

Lower Middlers. The course introduces students to the civilization of Rome which dominated the Western World politically for a thousand years and culturally for even longer. The developing concepts of politics, law, and empire as we know them today are discussed. The course challenges the student to consider the meaning of the Roman experience in its glorious achievement of the "Roman Peace" as well as in its "Decline and Fall."

For other courses related to Classics, please see:

*Under History*: Ancient History (History 410); Social History of Greece and Rome (History 411).

*Under Interdisciplinary*: Mythology; Epic Poetry; Etymology; Greek Literature in Translation; Roman Literature in Translation.



## English

The diploma requirements in English are to establish competence in writing and reading (normally by successful completion of the *Competence Course*), and to complete the *Literature Sequence* through *Literature C*. For those entering Seniors and Post-Graduates who must take *English 300*, the requirement is reduced by the appropriate number of trimesters. (Seniors and Post-Graduates are interviewed by the Department Chairman before the start of school and in some cases these students may be exempted from *English 300* to enroll in one of the 400 or 500 level English courses.) All new Lower and Uppers enroll in *Competence*. Students entering the Junior Class are strongly urged to take the normal Junior course, *English 10*, although they may elect to take no English at all. Juniors may not enroll in *Competence*.

The English Department also offers courses at the following levels: *Language Skills* and *Efficient Reading* for students lacking certain English skills; specialized courses for students who have already passed their competence and literature requirements and elect to continue studying English. Related courses, whose prerequisites vary, are listed elsewhere in this booklet: e.g., under Performing Arts, Interdisciplinary Courses, Classics Courses, and Modern Foreign Language Courses in translation. All English courses meet for four prepared classes a week, unless the course description states otherwise.

### 10-0 English

(1100) This course is recommended for all Juniors. As a foundation for the *Literature Sequence*, the course studies a variety of literary forms and styles. Frequent writing assignments and the study of language skills prepare the student for the *Competence* course in the tenth grade.

### 16-23 Language Skills (T2) (a two-term commitment)

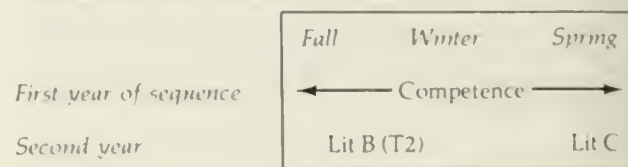
(1165) This course is designed for those students, primarily Juniors who need supplementary help in overcoming weaknesses in reading, writing, spelling, and vocabulary. By studying the structure of words and sentences, and by practicing patterns of pronunciation, students can learn to understand language better and use it more effectively. Specific assignments are geared to the needs of each student. Open only to students who have permission of the chairman of the English Department. (Mrs. Van Dusen)

*Juniors are also eligible to enroll in Etymology, which is described under Interdisciplinary.*

### 18-1 Efficient Reading

(1181) Primarily for Upper Middlers and Seniors. A course for increasing reading speed and comprehension, using the *Harvard Reading Course* with supporting exercises in writing and vocabulary. (Mrs. Van Dusen)

### Normal Required Sequence (2 years)



### (1200) Competence Course

The course is designed to teach basic skills in reading and writing. It enables a student to achieve the competence requisite for the literature sequence and the specialized courses. The course is concerned with the recognition and use of the basic elements of a sentence, sentence patterns, punctuation, paragraph development and coherence, and the composition of unified exposition. The first term emphasizes writing paragraphs and short compositions; the second term includes multi-paragraph compositions and the documented report. The third term focuses on close and accurate reading of the short story and the poem and helps students develop the skills necessary to write about these works clearly and concisely. *Competence* also encourages the acquisition of important reading skills in conjunction with the study of writing. Passages composed by skillful writers are evaluated for organization, logic, point of view, tone, diction, transitional devices. Through the use of the summary sentence, the outline, and the summary paragraph, a student learns to reduce a passage to core ideas. Texts: *English Competence Handbook*, *Prose Models*, ed. Levin; *50 Great Short Stories*, ed. Crane; *Sound and Sense*, ed. Perrine.

### LITERATURE SEQUENCE

#### Lit B (T2) (a two-term commitment)

*Lit B* continues the shift in emphasis, begun in the third term of *Competence*, away from basic writing training to reading and writing about literature. Here students will choose a course centered in one of three modes: Comic, Tragic, or Mythic. Though the modes differ, the objectives



of *Lit B* are common to all three: to develop the skills of literary analysis; to teach a sense of literary mode; develop a sense of historical perspective; teach the forms of the novel, the poem, the play; develop a literary sensibility; and apply analytical skills to the writing of papers.

(1224) **Lit B-I (The Comic View)**

A study of verse and prose works that illustrate the nature, purposes and techniques of comic writings. Core texts of 1980-81:

FALL TERM — *Huckleberry Finn*  
*Pygmalion*  
*Pride and Prejudice*  
 Comic Poems from Shakespeare to Nash

WINTER TERM — *Gulliver's Travels*  
*Decline and Fall*  
*The Canterbury Tales*, the prologue and a number of the Tales

(1234) **Lit B-II (The Tragic View)**

This course examines the form and content of a number of works in order to identify and define elements of tragedy that are fundamental to them. The works are arranged in approximate chronological order with a balance being sought in each term among the various genre. Techniques of literary analysis and critical appraisals of the reading are stressed in frequent written assignments. Core Texts:

FALL TERM — *Oedipus Rex*  
*Doctor Faustus*  
*Wuthering Heights*  
 Selected plays of Ibsen  
 Selected Poetry

WINTER TERM — *Mayor of Casterbridge* or *Return of the Native*  
*Heart of Darkness*  
 Selected stories of James  
*Death of a Salesman*  
*The Autobiography of an Ex-Colored Man*  
 Selected Poetry

(1244) **Lit B—III (The Mythic View)**

The course explores mythic elements in a wide variety of works with the aim of developing a student's ability to respond to and write about literature.

Core Texts:

FALL TERM — *The Bible* (selections)  
*The Odyssey*  
*Samson Agonistes*  
 Selected Poetry

WINTER TERM — *Moby Dick*

*A Portrait of the Artist as a Young Man*  
*Invisible Man*  
 Selected Poetry

(1263) **Lit C**

An introduction to the study of Shakespeare. At least three plays will be read, one being *Hamlet*, with an emphasis upon close textual analysis.

**SPECIALIZED COURSES**

Specialized Courses are open to students who have successfully completed *Competence, Literature B* and *C*. Courses numbered in the 500s are more intensive and demanding than those numbered in the 300s and 400s. Each course has four prepared class periods a week, unless specifically stated otherwise. Only courses with sufficient enrollment will be given.

300—123 **English**

(1301) A special course for all post-graduates and one-year seniors. Its purpose is to assure that those who take it will acquire the writing and reading skills taught in *Competence* as well as to provide exposure to substantial works of literature. Intensive writing drill in the Fall is complemented by study of the short story; in the Winter and Spring terms students read plays and poetry while learning to write effective papers of greater length. (Mr. Bernieri, Mr. Kalkstein, Dr. Germain)

401—1 **Non-Fiction Writing**

(1711) In this course writers will gain practice in these non-fiction modes: personal essay, analysis, argument, feature writing, and extended composition. There are daily writing assignments; class work focuses on student editing. In addition, students will read several works by major non-fiction writers. The instructors assume that students entering the course write with grammatical and rhetorical competence. (Mr. Pepper)

403—123 **Introduction to Writing**

(1731) An introductory course to the writing of original stories, informal essays, and poetry.  
 (1732) After examining examples of the genres mentioned, the student tries his hand at one or more of these forms. With written permission from the department chairman, a student may take this course before he has completed the normal Competence-Literature sequence. (Mr. Owen, Ms. Alvarez)

- 404—1 Hemingway and Fitzgerald  
 (1741) A consideration of two modern literary contemporaries who captured their eras with equal success, but whose prose styles and temperaments made them unlikely compatriots.  
 (1743)

Short stories and novels by both authors will be read. (Mr. Berneri)

405—23 Black Literature

- (1772) The theme and content of this course will vary each term. The first term's theme is "Toward the Promised Land": a consideration of several

African-American authors' depiction of their people's migration from the South to the North and the frustrations of the "dream deferred." Works by Ellison, Baldwin, Wright, Hughes, McKay, and Toomer are read. (Mr. Berneri)

408—123 American Writers of the Twentieth Century

- (1781) A thematic and comparative study of the novel and drama in America from 1900 to the present.  
 (1782) Representative authors are Wolfe,  
 (1783) O'Neill, Fitzgerald, Dos Passos, Hemingway,

Williams, Faulkner, West, Styron, and Agée. (Ms. Harper, Mr. Cobb)

500—23 James Joyce

- (1802) The first term is devoted to *Dubliners*, *A Portrait of the Artist*, and *Stephen Hero*, and Ellmann's *James Joyce*; the second to *Ulysses* and

*Finnegans Wake* in part. The purpose of the course is to follow the development of Joyce's method and style and to develop the skill to read important and difficult works without the aid of study guides and other secondary material beyond the Ellmann. Although the course may be taken in either term, the student gains a better sense of Joyce's genius by enrolling for two terms. (Dr. Germain)

502—12 Irish Literature

- (1821) The course will begin with a brief examination of Irish history and Celtic mythology in order to broaden our understanding of the four major writers of the Irish Renaissance: Yeats, Joyce, O'Casey,

and Synge. Though not a prerequisite, the fall term provides a firm basis for the winter term's study of the last fifty years of Irish history and literature. This term will focus on such issues as the troubles of Northern Ireland, the traditional influence of politics on literature, and the legacy left by Yeats and Joyce. We will read works by writers like Samuel Beckett, Frank O'Connor, and Seamus Heaney. (Ms. Bussiere)

504—123 Man and God

- (1841) The course considers man's search for meaning in what frequently seems to be an inexplicable world. Readings include *The Oedipus Cycle*,  
 (1842) Sophocles, *King Lear*, Shakespeare, *Rosencrantz and Guildenstern Are Dead*,  
 (1843) Stoppard, *Long Day's Journey Into Night*, O'Neill, J.B., MacLeish, *A Portrait of the Artist as a Young Man*, Joyce, *The Fixer*, Malamud,

*The Idiot*, Dostoevski, *The Trial*, Kafka, *Tiny Alice*, Albee, *The Birthday Party*, Pinter, *The Sound and the Fury*, Faulkner, *Short Stories*, Salinger, *Rabbit Run*, Updike, *Wise Blood*, O'Connor (Miss St. Pierre)

508—23 Directions in 20th Century Drama

- (1882) The close study of significant contemporary drama, specifically Ibsen's *Ghosts*, O'Neill's

*The Iceman Cometh*, Williams' *Streetcar Named Desire*, Bolt's *A Man for All Seasons*, Osborne's *Look Back in Anger*, Beckett's *Waiting for Godot*, Pinter's *The Homecoming*, Ionesco's *The Lesson*, Albee's *Who's Afraid of Virginia Woolf?*, and Stoppard's *Rosencrantz and Guildenstern Are Dead*. (Ms. Braverman)

509—1 Shakespeare: The Man, The Times, The

- (1891) Theatre, The Plays

509—3 The course focuses on six plays (representative histories, tragedies, and comedies), the sonnets, as well as some biographical and historical readings. (Mr. Stableford)

510—123 The Short Novel

- (1901) An examination of the novella, the genre of the short novel, with concentration on some fifteen works of comparative literature, including, Chekov's *Ward No. 6*, Mann's *Death*,  
 (1902) *In Venice*, Lawrence's *The Fox*, Tolstoy's *The Kreutzer Sonata*, James' *The Beast in the Jungle*, Stendhal's *The Centi*,  
 (1903) Greene's *The Third Man*, Melville's *Billy Budd*, Stevenson's *Dr. Jekyll and Mr. Hyde*. (Dr. Theroux)

512—12 Satire and Comedy

- (1921) A study of both the theories and practice of satire and comedy, with emphases on the eighteenth century and the modern period.  
 (1922)

Works by authors like Pope, Swift, Sterne, Ben Jonson, Waugh, and Heller will be studied in conjunction with the visual art of Hogarth and Steinberg, and recordings of modern performers like Cohen and Sahl. (Mr. Regan)

513—123 Novel & Drama Seminar

- (1931) The course concentrates on major works of literature since 1880, primarily on the works of  
 (1932) Virginia Woolf, Henry James, David Storey,  
 (1933)

Franz Kafka, Flannery O'Connor, T.S. Eliot, Samuel Beckett, Eugene O'Neill, William Faulkner, Jean Paul Sartre, Saul Bellow, Gabriel Garcia Marquez, Grace Paley, John Barth, Isaac Bashevis Singer, Elie Weisel, Harold Pinter, Christina Stead, and Vladimir Nabokov. Students study the "world" of each writer and compare it with that of the others. As a basis for the comparison with the classics of the past, they also study a Greek Tragedy and *The Brothers Karamazov*. Class periods are devoted to seminar discussions (often led by students) and critiques of student writing. Students regularly stage dramatic readings, cast and performed by the class. (Mr. Wise)

#### 514—123 Creative Writing

- (1941) A writing course in poetry, short fiction and drama. Content and emphasis shall be determined by each instructor. Fall: Introduction to creative forms; Winter: Poetry, Short Fiction;

Spring: Poetry, Short Fiction, Drama. (Mr. Lopes, Mr. Smith, Dr. Theroux)

#### 518—3 Milton and Spenser

- (1963) Students read minor works of both authors as well as Spenser's *The Faerie Queene* (Books

I-II) and Milton's *Paradise Lost*. (Mr. Kalkstein)

#### 520—123 Images of Woman

- (1971) This course will examine, through the study of literature, woman as she perceives herself and as she is perceived by others. It will explore works by both men and women writers and

will focus on the constant and the changing image of woman in different literary periods. Readings will include: *Measure for Measure*, Shakespeare; *Moll Flanders*, DeFoe; *Emma*, Austen; *Jane Eyre*, Bronte; *The Scarlet Letter*, Hawthorne; *Jude the Obscure*, Hardy; *Mrs. Dalloway*, Woolf; *The Awakening*, Chopin; *A Streetcar Named Desire*, Williams; *Who's Afraid of Virginia Woolf*, Albee; *The Waterfall*, Drabble; *The Country Girls*, O'Brien. (Miss St. Pierre, Ms. Harper, Mr. Hennigan)

#### 527—3 Chaucer and His Age

- (1983) The wit, poetry, and genius of the later Middle Ages and Renaissance, as seen in Chaucer and medieval drama. The focus of the course is a study of *The Canterbury Tales* in Middle English. (Mr. Regan)

#### 528—2 Wit and Poetry in the Seventeenth Century

- (1992) A study of the several types of concentrated, witty poetry that dominated the early seventeenth century—the schools of Donne, Jonson, Herbert, and Herrick—and of the profound effect that these poets

have had on later poets like Hopkins and Eliot. Although the focus of the course is poetry, some of the background material is prose, from Plato to the modern literary critics. (Mr. Zaeder)

*The following Theatre courses, which are related to English studies, have no prerequisites: Theatre 22 (Public Speaking), Theatre 28 (Shakespearean Workshop), and Theatre 29 (Playwriting). These may be found under Performing Arts. Other courses related to English are Art 311 (Contemporary Communications) and a number of literature in translation courses and Literature of the Quest in the Inter-disciplinary section.*

## History and the Social Sciences

The diploma requirement for history is successful completion of *United States History* (History 35 (T2) and 36) plus one trimester elective taken in the Upper or Senior year. When appropriate, adjustments are made in the requirement for one-year students.

The History Qualifying Test (H.Q.T.) will be given to all Lower Middlers in the Spring of 1980 and to all entering Upper Middlers, Seniors, Post-Graduates and foreign students during the orientation period in September 1980. The purpose of the test is to place students in the appropriate level of history study. (1) For some, the test results will indicate the student is to take *History 21* in the Fall or Spring terms of 1980-81 and begin the three-term sequence of *History 35 (T2)* and 36 in January 1981 or September 1981. Such a program satisfies the four-term requirement. (2) For some students the test results will indicate the student is ready to begin *History 35 (T2)* and 36 in September 1980. The student may choose to begin in September 1981. Such a student would also need one 400 level course. We recommend that the student take the 400 level course after having completed two terms of the three-term



35 T2) 36 sequence. History 35 (T2) and 36 and a term at the 400 level satisfies the diploma requirement. (3) The results on the H.Q. I. will determine whether students who have had a U.S. History course in the 11th or 12th grade at their previous school should take a term of History 21 or a term of history at the 400 level to complete the diploma requirement.

One of the courses offered for Juniors and Lower Middlers—*The Emergence of Man*—is designed to introduce the students to a culture different from their own. A second—*Early American Society*—stresses historical topics other than politics prior to the Revolutionary period.

The History Department recommends that during the Lower Middle year each student should take one term of biographical study. The selection should take one term of biographical study. The selection should be made from History 20 and 22. The Department believes that study in one of these courses will not only give the student an introduction to history through the study of great men but will also enable him to acquire certain fundamental skills in preparation for upper-level history and social science courses. The Department will emphasize various skills in reading, note-taking, the definition of historical and social science terms, the use of evidence, and the writing of historical essays.

The courses in history offered to Upper Middlers and Seniors are based on the conviction that a knowledge of the past is essential if an individual is to function effectively as a citizen in a modern democracy. The approach is topical; the traditional aim is to train students to handle historical material with discretion and to write essays containing substantive factual support for general statements; the pedagogical techniques are constantly under review.

Multi-disciplinary courses in the social sciences are also available for Upper Middlers and Seniors who wish to study particular societies of the twentieth century.

The essential purpose of all courses is to give the students training in the understanding of domestic and international problems that will serve them well as citizens. It is also hoped that for some students the course may kindle an interest in the study of human society, past and present, that can be a source of pleasure and profit all their lives.

## COURSES IN THE SOCIAL SCIENCES

### 10—1 Anthropology: The Emergence of Man

(2001) Four prepared class periods. Primarily for Juniors. This course concerns itself with the origins and nature of humanness, tracing those developments which make Man the unique animal he is. Among the specific topics covered during the term will be primate behavior, the evolution of culture and language, tool-making, and contemporary hunter-gatherer societies. Emphasis will be placed on both anthropological and archaeological techniques, as well as on reading and writing skills. In addition to readings, use will be made of films and filmstrips, and students will become familiar with fossil casts and artifacts, through the resources of the Peabody Museum of Archaeology.

### 10—2 Anthropology: The Emergence of Society

(2002) Four prepared class periods. Primarily for Juniors. This course traces the development of human society from the primitive Cro-Magnon bands of the Upper Pleistocene through the early river-valley civilizations of the Near East and equivalent New World advances. Specific topics covered during the term will include the origins of food-production, the growth of villages and cities, the advent of writing, the meaning of civilization, the state and the citizen. Emphasis will be placed on both anthropological and archaeological techniques, as well as on reading and writing skills. In addition to readings, use will be made of films and filmstrips, and students will become familiar with artifacts, through the resources of the Peabody Museum of Archaeology.

*Each of the above courses may be taken separately, but students whose schedules permit should consider taking them as a sequence, in order to obtain a full understanding of the early development of human beings and society.*

## HISTORY COURSES

### 10—1 Early American Society

(2101) Four prepared periods. For Juniors and Lower Middlers. A topical survey of pre-revolutionary American society, the course is designed to acquaint students with skills in historical exposition. Topics include the family, slavery, commerce and farming, religion and the arts. (Mr. Crawford)

### 20—1 Biography I

(2201) Four prepared class periods. For Lower Middlers and a limited number of Juniors. As a comparative study of American leaders, the course deals with the lives of men and women



who made significant contributions in several fields of endeavor. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, contemporary American eras, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperbacks: *The Autobiography of Frederick Lewis Douglass*; Samuel Eliot Morison, *Christopher Columbus, Mariner*; Ester Forbes, *Paul Revere and the World He Lived In*. (The Department)

#### 21-1 Biography I

(2211) Four prepared class periods. For Uppers whose

21-3 H.Q.T. scores require a term of preliminary

(2213) History study prior to *History 35 (T2)* and *36*, the primary difference between *History 21* and

*History 20* is that the readings in *21* are geared to older students and the subject matter is more explicitly related to preparation for *History 35 (T2)* and *36*. As a comparative study of American leaders, the course deals with the lives of men and women who made significant contributions in several fields of endeavor. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, contemporary American eras, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperbacks: Richard Morris, *Seven Who Shaped Our Destiny*; Saul K. Padover, *Jefferson*; Robert V. Remini, *Andrew Jackson*. (The Department)

#### 22-2 Biography II

(2222) Four prepared class periods. Open to Lower Middlers and selected Juniors. The course deals

with the lives of men and women in Europe from the Middle Ages to the eighteenth century. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperback: Eileen Power, *Medieval People*; Conyers Read, *The Tudors*; Robert Heilbroner, *The Worldly Philosophers*. (The Department)

#### 34-12 American History for Foreign Students

(2341) Four prepared class periods. A course for stu-

(2342) dents for whom English is a second language and whose H.Q.T. scores indicate they are not

ready for *History 35 (T2)* and *36*. The course will emphasize language skills important to the study of American History, and the subject matter will focus on the founding of the republic, constitution building and how the American Government works, the westward movement, the Civil War and the coming of urban-industrial, multi-ethnic America. The intention of the course is to recognize the special needs of the students and to bring them to a level of achievement so they may transfer to the *35/36* sequence in the winter or spring term, if the students wish to be candidates for the diploma.

35-12 The United States (T2) (a two-term commitment) (2354)

35-23 Four prepared class periods. For Upper Mid-

(2355) dlers and Seniors. This course, along with *His-*

*tory 36* and *History 20* or a 400 level history or social science course, according to placement on the H.Q.T., fulfills the four term diploma requirement. *History 20* taken as a Lower does not count as one of the four term diploma requirements. *History 35* is based on a series of paperbacks, original documents, and other readings that provide material for a survey of the history of the United States from the period before the Revolution to the twentieth century. Early topics stressed are the American Revolution, the establishment of the Federal Union, the age of Andrew Jackson, and the Civil War and Reconstruction. The emphasis then shifts to the industrialization of the United States, the problems that industrialization produced, and the attempts of the American people to deal with these problems. Finally, the course deals with the emergence of the United States as a world power. At the start of the course, emphasis is placed on such skills as close reading, note taking, and the writing of essays. Later on the student is introduced to different kinds of historical material, with more emphasis on discussion.

Representative titles are Edmund Morgan's *Birth of the Republic*, two volumes in Macmillan's *New Perspectives in American History Series* and two volumes in the *American History Series* edited by Carl N. Degler and David M. Potter.

Candidates for the *Washington Intern Program* are selected from students taking *History 35* as Upper Middlers and Seniors. In 1981, Upper Middlers returning from Washington will take *History 36* in the Fall of their Senior Year. (The Department)

#### 36-1 The United States

(2361) Four prepared class periods. For Upper Mid-

36-3 dlers and Seniors. The focus is on twentieth

(2363) century America to the present. In this term the writing of a research paper represents a major part of the work. Prerequisite: successful completion of *History 35 (T2)*.

**401—1 Modern China**

(2411) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to traditional Chinese thought and institutions, the course will concentrate on events since 1800 in China. There will be much emphasis on China's response to the West on economic, intellectual and political developments during the nineteenth and twentieth centuries. Readings will be from philosophy, history and literature. The classes will include both lecture and discussion. (Mrs. Sizer)

**402—2 Modern Japan**

(2422) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to traditional thought and feudal social structure in Japan, the course will move to a closer look at ideas, events and developments since 1800. An attempt will be made to understand the unique way in which Japan responded to the challenge of the West. Readings will be in historical texts, impressions of contemporary observers, sociological descriptions and literature with a special effort to understand the outstanding features of Japanese culture, politics and economics through analysis and discussion. (Mrs. Sizer)

**407—2 The Middle East**

(2472) Four prepared class periods. For Upper Middlers and Seniors. Few if any regions of the world claim a more compelling interest than the Middle East. From its ancient site of half the earth's cultural antecedents, birthplace of three world religions, landbridge of three continents, eternal East-West corridor, and ceaseless crossroads of conquerors, pilgrims, and traders, the Middle East derives a distinctive character of its own. And this course traces the region's emergence from the decline and fall of the Ottoman Empire (the famous "sick man of Europe") to the present day with an emphasis upon the political and economic aspects of the leading Arab states and Israel. But, as the name Middle East implies, the area is a global intersection and its history reflects a constant interplay between the nations of Africa and Eurasia as well as a certain presence of the Superpowers of our time; and it is, therefore, the center of a world security problem. Hence, the course also surveys international aspects with special attention to such matters as Middle Eastern oil and Arab-Israeli relations. A term paper is part of the course's requirement. (Mr. Bunnell)

**409—1 Latin American Studies**

(2491) Four prepared class periods. Open to Upper Middlers and Seniors. This interdisciplinary course offered by the History and Spanish departments provides an analysis of Latin

American social and political structures through the study of their historical and cultural development. The course will study the relation of these structures to United States policies.

**410—123 Ancient History**

(2501) Four prepared class periods. For Upper Middlers and Seniors. The course is concerned with Greek and Roman history from the Minoan Period to the beginning of the Medieval Period. Each term represents a coherent and independent unit. In the Fall Term the survey ends with the world empire of Alexander the Great. The Winter Term covers the period from the beginning of Rome until its transition from Republic to Empire. The Spring Term is concerned with Roman Empire and the transition from Roman to Medieval History. (Mr. Krumpe)

**411—1 Social History of Greece and Rome**

(2511) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to the study of social organization (including economic, religious and familial aspects) the course briefly considers the restrictive position of women in classical Greece. We then study Rome and the emergence from a primitive, agricultural background of an urban, enlightened attitude towards women. The complexities of the Empire and the liberal status of women, particularly in economic affairs, conclude the term. (Mrs. Clark)

**412—2 Social History of the Middle Ages**

(2522) Four prepared class periods. For Upper Middlers and Seniors. The course starts with the reshaping of Roman laws and customs by the rapidly emerging Christian doctrine; these in turn are changed by the invasions of the Germanic peoples. Charlemagne serves as the prime illustration of this medieval combination of attitudes. As Europe moved into the Renaissance, humanism and rationalism dignified woman as the 'Lady' of courtly love; at the same time the fear of woman as the 'witch' haunted Europe. (Mrs. Clark)

**420—0 Modern Europe: A Survey**

(2600) Four prepared class periods. Open to Upper Middlers and Seniors. The Fall term consists of a background survey of the 16th, 17th, and 18th centuries, with particular emphasis on the political, economic, and intellectual revolutions that helped to mold the modern world. The focus of the Winter Term is the period 1800-1900, with continuing attention given to the shaping of modern thought, the emergence of the nation-state, and the effects of industrialism. In the Spring Term, the course covers topics in 20th century Europe; the two World Wars,



and their effect; the nature of totalitarianism; the cold war and the rise of the superpowers.

Reading is from primary and secondary sources, as well as fiction. Visual materials are used where appropriate. This course has proven to be a good preparation for the Advanced Placement Examination in European History. (Mr. Richards)

#### 422—2 Elizabethan England

(2622) Four prepared class periods. For Upper Middlers and Seniors. The years when England was ruled by the Tudor family were some of the most colorful and pivotal in English history. During those years, crucial political and religious changes were initiated, creativity was encouraged, and England prospered. This course focuses on Elizabeth and her England in the context of the European scene and is intended to be a study in depth. Social and cultural conditions are studied as well as political and economic conditions. The books used include the Neale biography of Queen Elizabeth. (Ms. Minard)

#### 424—1 Victorian England: England in an Age of Expansion

(2641) Four prepared class periods. For Upper Middlers and Seniors. The course is devoted to a study of the major movements and changes that challenged the British people from 1789 to 1901. It is divided into three periods: a study of the background of 1832, the early Victorians, and the late Victorians. The final eight weeks of the course are concerned with the last two periods. Since Victorian literature more directly influences the life and thought of the times than that of any other period of English history, the course examines closely those writers whose works were influential in adapting English minds and institutions to changing conditions. (Mr. Harrison)

#### 426—12 Modern Russia: History and Literature

(2661) This course, for Seniors only, examines the past 150 years of Russian history and culture in somewhat greater depth than is possible in the one-term course (*History 427*). Though either term may be taken alone, students are urged to treat it as a two-term commitment. The first term is devoted to Imperial Russian history and culture, with an examination both of Tsarist institutions and the growing revolutionary movement. The second term is devoted to Soviet Russia since 1917; the course concludes with a close look at the U.S.S.R. today and its prospects for the future.

Considerable attention is given to the study of literature. From the days of Pushkin in the early 19th century, Russian writers have been viewed by the government with fear and suspicion. This is because, despite police harassment, and censorship, they have continued to write fearlessly about

the most pressing issues of their times. As the course examines the significant events and ideas of modern Russia, it also examines the reflection of these events and ideas in the fiction and memoirs of such authors as (in the Fall Term) Pushkin, Gogol, Turgenev, Dostoevsky, Tolstoy, Chekhov, and Gorky, and (in the Winter Term) Mayakovsky, Zamiatin, Babel, Olesha, Solzhenitsyn, and writers of the contemporary underground press known as *samizdat*. (Mrs. Powell and Mr. Richards)

#### 427—3 The Soviet Union

(2673) Four prepared class periods. Open to Upper Middlers and Seniors. After an initial examination of Russia's medieval and early modern background, the course focuses on the past hundred years of Russian history, with a careful study of the revolutionary changes which have transformed that country internally and created one of the great powers of the contemporary world. Although the general orientation is chronological, the course focuses on specific topics of particular significance: the tension between East and West; the rise of the intelligentsia; Lenin and the Bolshevik Party; the Stalinist totalitarian system; Soviet foreign policy; the contemporary Russian mind. Emphasis is placed on political affairs and especially the Revolution of 1917, but considerable attention is also given to economic, social, and cultural matters. Reading is from a wide variety of sources, both primary and secondary, and also works of fiction. Visual materials, principally films, are also used. (Mr. Richards)

#### 430—1 The Rise and Fall of the American Presidency

(2701) Four prepared class periods. For Seniors. The course studies the extraordinary expansion of presidential power in law and practice since the 1930's. The American presidency has been the focal point of the United States government in times when vigorous government action has been called for. The Great Depression, World War II, the Cold War, the Civil Rights Revolution, the War on Poverty, and the Vietnam War—all called for the increased powers for the executive. And Presidents Roosevelt, Truman, Kennedy, Johnson, and Nixon seized the opportunities to expand presidential power. But in the Nixon administration, the nation saw executive usurpation of illegal powers, a subversion of the Constitution, and a threat of presidential tyranny. The climax was the "imperial presidency" and impeachment. The course consists of class discussions and several short analytical papers. The readings are drawn from: James Barber, *Presidential Character*; Anthony Lukacs, *Nightmare*; and Arthur M. Schlesinger, Jr., *The Imperial Presidency*. (Mr. Lyons)

**432-1 International Relations: The Present Patterns**

(2721)

Four prepared class periods. For Upper Mid-

**432-2** dlers and Seniors. In its essentials the course is

(2722)

limited to the contemporary era of interna-

**432-3** tional affairs, a span of years that is now more

(2723)

than a quarter of a century old, extending from the diplomacy of World War II to the current

era of détente. The emphasis is upon the international politics of the world's two superpowers, the United States and the Soviet Union, how they created the United Nations, the Cold War, the many alliances, the nuclear arms race, and the numerous confrontations between themselves and their respective allies, how, too, they prompted the formation of the Third World and repeatedly intervened in its affairs with financial aid, advice, arms, alignments and troops, and finally, some reasons why they continue to perpetuate these massive manifestations of their great power. The course does not seek to fix praise or blame but rather to discern and comprehend the main lines of the predicament and to suggest possible alternatives. Textbooks, the periodic literature of journals, monthly and fortnightly publications, and newspapers are all employed. (Mr. Bunnell)

**433-3 Urban Studies Institute**

(2733)

Seniors who have finished their diploma requirements (or all such requirements except

for the fourth term of history), and are not involved in year-long courses may elect for their entire spring course program (as part of a Short Term Institute) to participate in a ten-week exploration of the American city, including field work four mornings each week. Lawrence, Massachusetts, its history and its present shape, its people and their special problems and opportunities, will be the focus of study, but the context will be drawn through investigation of broad historical, social, and economic issues which affect most of urban America. Lawrence has always been an immigrant city, and one-third of Lawrence's public school students are now of Hispanic background. In addition to their academic course work, Phillips seniors will explore a central aspect of urban life by serving as tutors in an intensive English language training program for a group of these Lawrence children; the tutoring program, which will be designed by Institute students and staff, will use dramatization and one-to-one tutoring to strengthen the children's oral and literary skills. Knowledge of Spanish or familiarity with theatre will be useful, but not essential.

All students will take a course in Caribbean History and a course in Urban History, as well as a core course introducing developmental psychology and ethnic studies in such a way as to inform and support the fieldwork project. Students will meet periodically in evening seminars with outside speakers.

Seven to ten Phillips Academy seniors will be selected by

interview and special application. Seven to ten seniors from college preparatory courses in Lawrence and Andover high schools will be selected in the same way. Apply to Susan M. Lloyd for information and application forms. (Ms. Rodriguez, Mr. Quattlebaum, Mrs. Lloyd)

**434-12 American Urban History (Not offered in 1980-81)**

Four prepared class periods or the equivalent. Limited to fifteen Seniors and Upper Middlers. Prerequisite: permission of the instructor. Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing via nine brief weekly papers, oral presentations, analytical and interpretive thinking. Fall Term work focuses not only on definitions of "city" and "American city," but also on the proper role of the historian toward the city, and on the evolution of the city from prehistoric times through the American colonial period. The Winter Term deals with different "types" of American communities and cities—such as Lowell, Washington, Oneida, New York, Salt Lake City, Los Angeles—evolving between the Eighteenth and Twentieth Centuries.

The course entails occasional visits to Boston and Lawrence, and continuous monitoring of ten urban newspapers, such as the *Atlanta Constitution*, the *Chicago Tribune*, and the *Denver Post*. General readings include: Edward Banfield, *The Unheavenly City Revisited*; Lewis Mumford, *The City in History*; urban novels like Theodore Dreiser, *Sister Carrie*; and monographs like Gunther Barth, *Instant Cities*. (Mr. Quattlebaum)

**434-3 American Urban History (Not offered in 1980-81)**

Prerequisite: *History 434-1* or *History 434-2*. The student embarks on an individual, historical research project, either on a particular American city or on a selected aspect of several cities. (Mr. Quattlebaum)

**435-1 Schools in America**

(2751)

Four prepared periods. For Upper Middlers and Seniors. The course analyzes the purposes

for schooling perceived during the nineteenth and twentieth centuries and the institutions Americans created and supported to promote those purposes. Reading is drawn from historical sources and from contemporary social science and philosophy. Students are expected to relate the material to the "aims" of their own educations. (Mr. Sizer)

**436-2 Families in America**

(2762)

Four prepared periods. For Upper Middlers and Seniors. The course examines family structure, function, and development from the colonial period to the present. Sex role, methods of child nurture, economic base of the family, and varieties of family patterns



growing out of different ethnic backgrounds are among the major topics studied. Readings are drawn from primary and secondary sources. (Ms. Amster)

#### 438—12 The American South

(2781) Four prepared class periods or the equivalent.

(2782) Limited to fifteen Seniors and Upper Middlers.

Prerequisite: permission of the instructor.

Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing *via* nine brief weekly papers, oral presentations, analytical and interpretive thinking. This course is a survey of the American South from Jamestown in 1607 to Houston, Los Angeles, and the Carter Administration in the 1970's. It explores southern identity, economy, class structure, slavery, race relations, violence, and late-twentieth-century ascendancy, among other themes. The Fall Term concludes with the Civil War. The Winter Term covers the Era of Reconstruction to the present. Readings include: Sheldon Hackney, "Southern Violence"; W.J. Cash, *The Mind of the South*; Kenneth Stampp, *The Peculiar Institution*; John Hope Franklin, *A Southern Odyssey*; Richard Wright, *Black Boy*; C. Vann Woodward, *The Burden of Southern History*; and Kirkpatrick Sale, *Power Shift: The Rise of the Southern Rim*. (Mr. Quattlebaum)

#### 440—3 History and Mathematics

(2803) Four prepared periods. Prerequisite: permission of the Instructors. This course provides

an introduction to the ways in which elementary mathematics is employed in the study of history. Attention focuses on three main areas: elementary statistics and data analysis; entertaining historical controversies; and the logic of historical inquiry—that is, how to design a history research project. To accomplish these purposes, participants do assigned homework problems in mathematics and read exemplary works in the field, in order to discuss their merits and demerits. Most of the reading is from two books: Hubert M. Blalock, Jr., *Social Statistics*; and Robert P. Swierenga (ed.), *Quantification in American History*.

#### 443—2 Topics in the History of Phillips Academy and Abbot Academy

(2832) Four prepared class periods or the equivalent.

(2833) Involving work in the Phillips Academy and Abbot Academy Archives on some aspect of

history of the schools, the course introduces the student to the problems of working with the raw materials of history. Permission of the instructor is required for enrollment. (Mrs. Quattlebaum)

## Interdisciplinary

*All courses are electives. Courses in this section may be taken during more than one trimester unless the individual description indicates to the contrary.*

#### (9311) Basic Study Skills

(9312) Four class periods. Open to Lower and Up-

(9313) pers, and to Juniors in the Spring. Permission

of the instructor required. The course is designed to help students build effective reading and study skills through understanding more about the learning process. Class discussion focuses on the problems of motivation, concentration and retention. Exercises are designed to work on improvement in each of these areas and to develop proficiency in planning studying time, in developing accurate yet flexible reading comprehension, in taking notes or marking books, and in preparing for exams. When possible, students' texts from other courses are used for instruction. (Mrs. Van Dusen)

#### (9351) Etymology

(9352) Four prepared class periods. For all classes.

(9353) Training in the interpretation of English words by systematic analysis of elements derived

from Greek, Latin and other Indo-European languages. Exercises expand vocabulary and develop precision of expression and understanding. The course may be taken for at most one term.

#### (9371) Greek Literature in Translation

Four prepared class periods. Open to all classes. A systematic study of the masterpieces of early European civilization as seen in their proper literary, intellectual, and historical context. In what is essentially a history of ideas, the major *genres* of epic, tragedy, comedy, satire, history, erotic poetry, and philosophy are stressed as aspects of the wider evolution of early European thought which laid the basis for modern civilization. The major problems which still confront human life are explored through the writings of Homer, Aeschylus, Sophocles, Euripides, Herodotus, Thucydides, Aristophanes, Plato and others. (Dr. Pottle)

#### (9381) Literature of the Quest

(9382) Four prepared class periods. Open to Seniors.

(9383) Focusing on the ancient pattern of the journey, the thresholds crossed and the vision obtained,

the course asks students to interpret elements of the quest from a variety of perspectives. In the Fall Term readings include Socrates' *Euthyphro*, *Oedipus Rex*, the Abraham cycle, Castaneda's *Journey to Ixtlan* and Eliot's *The*

*Waste Land*. The Winter Term considers the suffering encountered on the quest and explores themes from the gospel of Mark, *King Lear*, *The Great Gatsby*, Wiesel's *Night*, West's *Mus Lonelyhearts*, and Flannery O'Connor's *Everything That Rises Must Converge*. The Spring Term questions the journey's end, reading the Amor and Psyche myth and *Alice in Wonderland*, comparing Jacob and Jesus and ending with two tragicomedies: *The Tempest* and *Who's Afraid of Virginia Woolf?* (Mr. Zaeder)

(9362) **Mythology**

(9363) The interest of the Twentieth Century in Classical Mythology has stemmed from three main sources: the psychoanalytical use of myth, progress in the field of classical archaeology, and anthropological study of myth. Preliminary exploration of the works of Freud in psychology, Schliemann and Evans in archaeology, and Frazer, Graves, and Levi-Strauss in anthropology leads to the detailed study of the myths of Oedipus, Theseus, and Agamemnon among others. The myths are considered living entities changing in the hands of each artist who deals with them whether it be Homer or Joyce, Aeschylus or O'Neill, an anonymous Greek vase painter or Dali, Euripides or Strauss. Works of literature, art, and music provide the core for the study of the use of myth in human life. This course may be taken for at most one term. (Mr. Krumpe)

(9392) **Roman Literature in Translation**

Four prepared class periods. Open to all classes. A systematic study of the Latin masterpieces as seen in their proper literary and historical contexts. The central theme of the course is that of the artist and his or her society in an age of empire. Through the writings of Cicero, Vergil, Ovid, Suetonius, Tacitus, Petronius, Apuleius and others, this course examines the tension which held between the realm of artistic self-expression and the world of political power realities. The larger question of the relationship between the artist-intellectual and his or her society is studied in the context of imperial Rome. (Dr. Pottle)

(9401) **Russian Literature in English**

Four prepared class periods. The themes of romanticism, realism, the "superfluous person," Slavophilism, westernism, nihilism, perfectionism, and humanism are examined in the works of Pushkin, Lermontov, Gogol, Turgenev, Goncharov, Ostrovsky, Dostoyevsky, Tolstoy, Chekhov, and Gorky, both as styles of literary expression and as stimuli of Russia's social and political development. (Mr. Lane)

(9412) **Soviet Literature in English**

Four prepared class periods. A study of the conflict of individual freedom and social purpose in Russia

since the Revolution, based on selected translations. Socialist realism, satire, divided personality, and dissent are examined against the Soviet political and economic background and in the perspective of Russian literary traditions. (Mr. Lane)

(9601) **Typing**

(9603) This course in personal typing is open to all students; it is designed for beginners to learn the keyboard and basic typing skills. There is no charge, but students must supply their own typewriters. This course does not earn academic credit. (Mrs. DiClemente)

For other courses which are interdisciplinary in nature see Art 311.

## Mathematics

Mathematics at Andover is addressed to several overlapping audiences within the student body: the future citizen of late twentieth century society, immersed in a culture which has been shaped to a large extent by mathematical perceptions of reality; the future user of mathematics, whose vocation may depend upon special knowledge of a mathematical sort; and the future mathematical scholar, who may turn his energies and curiosity to the organization or dissemination of mathematical knowledge.

The mathematics curriculum is built around a core sequence of eight trimester courses: three of elementary algebra, two of geometry and three of precalculus topics. The completion of these eight trimesters will satisfy diploma requirements, but an additional trimester may be required of some students before entering the calculus.

Students entering with no prior study of algebra start with *Mathematics 10*; those with a partial year of algebra enter *Mathematics 11*. Students entering with a full year of algebra start with *Mathematics 20-12*. If the results of placement testing indicate a need for *Algebra Review*, then the students start with *Mathematics 19-1* and continue to *Mathematics*



20-23. Those with one year of algebra and one year of geometry will satisfy diploma requirements by taking the first three precalculus trimesters: either *Mathematics 30-0*, or *Mathematics 32 and 35 (T2)*.

Placement of new students in the appropriate first course is made by the department considering the record in previous schools, the results of a self-administered diagnostic test in elementary algebra which is sent to newly admitted students in the Spring, and the course program chosen by the entering student. In general, algebra courses taken before the eighth grade and geometry courses taken before the ninth grade will not earn placement credit. Examinations to validate first and second year algebra skills are given early in the Fall trimester, at which time students who are incorrectly placed can be shifted to higher or lower level courses.

It is best to take the College Entrance Examination Board Achievement Test in Mathematics near the end of or immediately following the precalculus sequence.

For students who wish to go beyond the required level, the department offers many electives, some of which lead up to and beyond the Advanced Placement Calculus Examinations of the College Board. The prerequisites of these elective courses should be noted, particularly by students who are involved in Off-Campus Programs.

### Computer

In addition to its course offerings, the department manages the campus computer time-sharing system. The computer, a Digital Equipment Corporation PDP-11/70, is housed in the Mathematics building and serves sixteen terminals, of which ten are available for student use.

The department also has microcomputers available for student use. At the present time there are two Radio Shack TRS-80 Level II with 16k ROM and two Apple II with 48k ROM (one with disk drive).

### Hand Calculators

Every student taking Mathematics or Physical Science must have a suitable hand calculator capable of handling square roots, sines, cosines, reciprocals, logarithms and exponents. Any calculator with *sin*, *log* and inverse function keys is adequate for all course use.

### COURSES LEADING TO SATISFACTION OF THE DIPLOMA REQUIREMENT:

#### 10-0 Elementary Algebra

(3100) Five prepared class periods. A year-long course for students who have had little or no algebra.

Stress is placed in an understanding of the elementary structure and language of the real number system, on the manipulative skills of simplifying expressions and solving first and second degree equations, and on the study and graphing of polynomial functions. Significant work is done with word problems, inequalities, irrational numbers, right triangle trigonometry, and an introduction to computer programming in BASIC. Prerequisite: None.

#### 11-0 Elementary Algebra

(3110) Five prepared class periods. A year-long course for students who have had previous instruction in algebra but whose knowledge and skills are not

strong enough to enter the regular second level course. The topics covered are the same as *Mathematics 10-0*, but the problems range over a greater breadth and depth. Prerequisite: A half to a full year of algebra.

#### 19-1 Algebra Review

(3191) Five prepared class periods. A course for students who enter with a full year of algebra

whose knowledge and confidence in algebra indicate they are not quite ready to handle geometry. Prerequisite: A full year of algebra.

#### 20-12 Geometry (T2) (a two-term commitment)

(3204) Five prepared class periods. A two-term course

for students who have had a *strong* ninth grade

algebra course, but no geometry. This course

is a thorough and systematic presentation of synthetic Euclidean geometry. Strong emphasis is placed on the need for precision and clarity in the writing of formal proofs. Prerequisite: A complete course in elementary algebra comparable in coverage to *Mathematics 10-0*.

#### 30-0 Precalculus

(3300) Five prepared class periods. A year-long course for students with one year of algebra and one

year of geometry. Completion of this course satisfies the diploma requirements. Topics include use of the computer; the structure of groups and fields, with applications to elementary algebra; polynomial, circular, exponential and logarithmic functions and their applications.

Because of the extra period per week in the last two terms, some students, upon completion of the course, may, with department permission, enter *Mathematics 51-1*, or *Mathematics 55-0*. Those who do not receive permission

must first take *Mathematics 36* if they wish to enter the calculus sequence. Prerequisite: Credit for one year of algebra and one year of geometry or *Mathematics 20-23*.

### 31-0 Geometry and Circular Functions

(3310) Five prepared class periods. A year-long course for entering students who have not studied geometry. The course covers Euclidean and coordinate geometry, the circular functions and their geometrical applications. Offered only when demand is sufficient. Prerequisite: Credit for one year of elementary algebra and one year of intermediate algebra.

### 32-3 Precalculus

(3323) Five prepared class periods. Topics in intermediate algebra including sets, properties of real numbers, factoring, fractions, exponents, radicals, solutions of linear, quadratic, and radical equations. Prerequisite: *Mathematics 20*, or its equivalent.

### 35-12 Precalculus (T2) (a two-term commitment)

(3354) Five class periods, four prepared and one unprepared. More topics in intermediate algebra, including use of the computer, absolute value, inequality, linear, quadratic, polynomial, exponential, logarithmic, trigonometric, and inverse functions, graphing and applications of these functions. Completion of this course satisfies the diploma requirement. Prerequisite: *Mathematics 32*, or its equivalent.

### 36-1 Precalculus

(3361) Four prepared class periods. Required of students coming from *35 (T2)* who plan to study calculus. Topics that bridge the gap between algebra and calculus, including sequences and their limits, area functions, summation and mathematical induction, vectors, group structure, complex numbers, field structure. Prerequisite: *Mathematics 35* or its equivalent.

### 40-12 Elementary Functions (T2) (a two-term commitment)

(3404) Five prepared class periods. A two-term course for entering Seniors who have not had trigonometry but have studied three years of mathematics in high school. Required of those students whose prior work may be found not to satisfy diploma requirements. Work focuses on a review of the fundamentals of algebra, and the elementary functions. Enough trigonometry is done in the Fall Trimester so that students with high quality work may satisfy the diploma requirements and take *Mathematics 50-23 (T2)*. Prerequisite: Credit for three years of high school mathematics. Not open to students from *Mathematics 30-35* or *36*.

## SELECTIVE COURSES

*Only courses with sufficient enrollment will be given.*

### 41-3 Exploring Data

(3413) Four prepared class periods. An introduction to techniques of uncovering the useful information contained in masses of numerical data. No reliance is placed on the knowledge of or development of heavy mathematical tools. Prerequisite: None.

### 42-12 Probability and Statistics (T2) (a two-term commitment)

(3424) Four prepared class periods. Includes sample spaces, counting problems, sampling, conditional probability and applications using the computer. Random variables, expected value, variance and standard deviation. Applications of the binomial and standard normal distributions, hypothesis testing and statistical inference. Prerequisite: *Mathematics 30* or *35*.

### 42-3 Statistics

(3423) Four prepared class periods. Applications of statistical inference to social and physical sciences. Estimation and hypothesis testing. Prerequisite: *Mathematics 42-12 (T2)*.

### 44-3 Transformation Geometry

(3443) Four prepared periods. A geometry course designed to show that the interplay between geometry and algebra enriches both subjects. Area, similarity, and symmetry in geometry are examined through mappings, vectors and groups from algebra. Prerequisite: *Mathematics 30* or *35*.

### 45-1 Mathematics Revisited

(3451) Four prepared class periods. A course of refreshment for those who have satisfied diploma requirements early in their high school careers but who have since discovered a vocational or other need for resuming study. Prerequisite: Prior completion of diploma requirements and departmental permission.

### 46-3 Theory of Numbers (Not offered 1980-81.)

Four prepared class periods. A study of the elementary theory of numbers, emphasizing the arithmetic of the integers. First consideration given to divisibility and prime numbers, ideas that underlie much of the later work. Other topics considered are congruences, Diophantine equations (and Fermat's Last Theorem), continued fractions, and certain special numbers. Prerequisite: *Mathematics 30* or *35*.



**47—1 Computer Programming**  
 (3471) Four prepared class periods. An introduction to programming in the BASIC-PLUS code. The solution of mathematical problems with computer assistance. Depending on the instructor, the focus may be on a central theme such as cryptanalysis, statistics, data processing, or linear programming. Prerequisite: *Mathematics 30* or *35*.

**48—3 Numerical Methods on the Computer**  
 (3483) Four prepared class periods. An investigation of the solution of numerical problems on the computer. Stress is laid on the approximations necessitated by the number system peculiar to the computer. Problems include finding zeros of functions (including complex zeros), solutions of simultaneous equations, fitting curves to data, large number arithmetic on the computer, and polynomial approximations for functions. Prerequisite: Open to Upper Middlers and Seniors with previous programming experience, and to others by permission of the instructor.

**50—23 Elementary Calculus (T2) (a two-term commitment)**  
 (3505) Four prepared periods. This course, for seniors only, does not specifically prepare for the Advanced Placement Examination. The approach to calculus is concrete, informal and applied, as opposed to abstract, deductive, and theoretical. Topics include applications of the derivative and integral to problems of optimization, curve sketching, rate of change, area, volume, and work. Techniques will be developed to apply derivatives and integrals to logarithmic, exponential, trigonometric and inverse functions. Prerequisite: *Mathematics 36-1*, or an equivalent course in trigonometry and elementary functions.

**51—1 Elementary Calculus**  
 (3511) Five prepared class periods. The first of a three course sequence that covers the syllabus for the AB Advanced Placement Examination of the College Entrance Examination Board. Topics covered include: review of functions and graphing, theory of the definite integral, introduction to the derivative and its applications. Prerequisite: *Mathematics 30* with department permission; *Mathematics 36*, or the equivalent.

**52—12 Elementary Calculus (T2) (a two-term commitment)**  
 (3524)  
**52—23** Five prepared class periods. Theory of the derivative, chain rule of differentiation, related rates, Rolle's Theorem, Mean Value Theorem, techniques and applications of integration, Fundamental Theorem of the Calculus. Prerequisite: *Mathematics 51*.

**54—3 Infinite Series and Differential Equations**  
 (3543) Five prepared class periods. This course extends the work of *Mathematics 52* to prepare the student for the College Board BC Advanced Placement Examination. Prerequisite: *Mathematics 52* or may be taken simultaneously with *52*.

**55—0 Honors Calculus**  
 (3550) Five prepared class periods. A year-long course in analytic geometry and calculus which begins only in the Fall. Students contemplating Off-Campus Projects at some time during the year should not enroll in this course. Enrollment is limited to able and committed mathematics students, as the coverage is more theoretical and extensive than that of *Mathematics 51, 52*. Satisfactory completion of this course prepares for the College Board BC Advanced Placement Examination. Prerequisite: *Mathematics 30* or *36-3*, and departmental permission.

**61—0 Calculus Continued and Other Topics**  
 (3610) Four prepared class periods. The course completes preparation for the College Board BC Advanced Placement Examination, but also includes additional topics at the discretion of the instructor. Prerequisite: *Mathematics 52*.

**65—0 Linear Algebra and Vector Calculus**  
 (3650) Four prepared class periods. For students of demonstrated ability and interest who intend to continue their studies of mathematics in college. Vector spaces, linear transformations, matrices, determinants, systems of linear equations, the calculus of functions with vector arguments and vector values. Prerequisite: *Mathematics 55* or its equivalent.

See also History 440-3 (History and Mathematics) in the History and Social Sciences section.

#### SPECIAL COURSES

**30—1 Mechanical Drawing (Elementary)**  
 (3701) Two prepared class periods and four unprepared. Not open to Juniors. A term-contained beginning drawing course that includes the use of drawing instruments, lettering, geometric constructions and loci, sketching, orthographic projection, and spatial relations. Special stress is placed on a thorough mastery of fundamental concepts and skills.

**31—2 Mechanical Drawing (Intermediate)**  
 (3712) Two prepared class periods and four unprepared. A term-contained technical drawing course in applied Descriptive Geometry and Graphics involving work in sectioning and

conventions isometric and oblique pictorial projections, intersections revolution primary auxiliary views, and developments. Prerequisite: *Mechanical Drawing 30*.

**32—3 Mechanical Drawing (Advanced)**

(3723) Two prepared class periods and four unprepared. A term-contained technical drawing course consisting of substantial work in dimensioning, detail and assembly engineering drawing, print reading, successive auxiliary views, and or fundamentals of design. Prerequisite: *Mechanical Drawing 31*

**30—1 Navigation (Coastal Piloting)**

(3731) Four prepared class periods. Not open to Juniors. A term-contained course in Piloting: (3732) i.e., marine navigation within sight of land or landmarks. Substantial dead reckoning and (3733) special case plotting is done on charts and small area plots. Aids and dangers to navigation are studied. Practical use is made of Tide and Current Tables, Light Lists, compass correction, radio, radar, and Loran.

**31—2 Navigation (Celestial)**

(3742) Four prepared class periods. A term-contained course in Celestial Navigation: i.e., navigating (3743) at sea by means of the stars, sun, moon, and planets. Nautical astronomy is studied. Significant work is done in coordinate conversion, time, altitude intercept theory, the solution of the Navigational Triangle by HO 214, HO 229, and the Nautical Almanac, special lines of position, the use and correction of a marine sextant, times of observational twilight, and "a day's work" at sea. Prerequisite: *Navigation 30*

individual, for every country, and for our common world.

The diploma requirement is customarily satisfied by completion of a 9th-trimester course reached through the regular or the accelerated sequence. Placement of new students is based on their previous school record, on the questionnaire sent to them and their current language teachers in the spring, and, when appropriate, on a personal interview with the language chairman at Andover. Details regarding various options and the diploma requirement as it is applicable to "incoming Uppers and Seniors who begin a new language at Andover" are available from the Registrar's Office.

With the exception of Italian (limited to Seniors), each of our languages, ancient and modern, may appropriately be started by students of any grade, Juniors (9th) through Seniors. Many Andover students continue their language study beyond the third year, and a good number of them simultaneously study two or even three languages.

Small classes, flexible placement, and opportunities for acceleration assure that each student is in the optimum learning situation. The foreign language is the language of the classroom. In conversation, in reading, and in writing, the goal is direct communication in the foreign language rather than through translation. The classroom experience is expanded by the language laboratory; media resources (e.g., periodicals, radio broadcasts, movies); the staging of plays; club activities; language events and programs at Andover or nearby schools. At all levels of instruction attention is focused both on basic language skills and, increasingly, on the literature, history, and various art forms which reveal the people whose languages are being studied.

For information on School Year Abroad and other opportunities to study abroad, students should see their language instructor or the chairman of the Language Division.

## Modern Foreign Languages

Andover's requirement of at least three years of an ancient or modern language rests on the firm belief that direct acquaintance, through language, with the spirit and people of other lands is a psychological and intellectual resource of inestimable value for each

## French

The French Department offers a six-year course of study. The first two years are devoted to teaching the basic language structure. In the third year, while continuing to progress in the language, a student is given the opportunity to choose the trimester courses

which best serve his needs. Fourth and fifth-year courses offer study in depth of both literature and civilization. Students who demonstrate unusual aptitude and interest during the first year of study are invited to enter special sections which move ahead more rapidly without demanding more time. Those who complete the accelerated sequence may meet the diploma requirement after seven trimesters as they move directly into fourth-year courses.

In all courses, students are taught to understand, speak, read, and write the language paralleling as closely as possible the natural order of learning. French is the language of the classroom and at no time does the department teach the art of translation.

#### 10—0 Beginning French

(4010) Five prepared class periods. First-year French for students who have had no previous courses in the language. Students make frequent use of the language laboratory. Listening comprehension and the use of basic patterns of French speech are emphasized. Elementary grammatical and idiomatic structures are introduced, as well as simple reading material. Text: *Méthode de Français*, Boorsch-Capretz.

#### 11—0 First-Level French

(4030) Five prepared class periods. This first-level French course is designed to help the student who has had previous instruction in the language, but whose knowledge and skills are not secure enough for him to enter a regular second-level section. It is also appropriate for students with experience in other languages who wish to begin the study of French. The course emphasizes the development of aural-oral skills and prepares for *French 21* the following year. Text: *Méthode de Français*, Boorsch-Capretz.

#### 12—23 Accelerated First-Level French (T2) (a two-term commitment)

(4045) Five prepared class periods. An accelerated course beginning in the winter and offered to students in *French 11* who are doing honor work. This course is continued in *French 22*. Text: *Méthode de Français*, Boorsch-Capretz.

#### 20—0 French

(4050) Review of basic skills. Five prepared class periods. For students who have successfully completed *French 10* or *11* but who need a review of elementary material. By permission of Department Chairman.

#### 21—0 Second-Level French

(4060) Five prepared class periods. For students who have completed *French 11* and for new students who qualify through teacher recommendation or placement examination. While continuing to develop aural-oral skills, the aim of this course is to teach reading and the ability to understand non-technical French prose. Texts: *Séjour en France*, Christin-Lefèbvre.

#### 22—12 Accelerated Second-Level French (T2) (a two-term commitment)

(4074) Five prepared class periods. An accelerated course open to students who have completed *French 12* and to properly qualified new students. Successful completion of this course permits students to enroll in regular courses at the third level during the Spring Term. Texts and reading materials include: Campbell et Bauer, *La Dynamite*; Sartre, *Les Jeux sont faits*; Sturges, Cregg, Herbst, *Une fois pour toutes*; Kirkland, Knox, *A mon avis*. By permission of the Department Chairman.

#### Third-Level Courses

At the third level, progress in all language skills continues through their application in the study of a particular area.

These courses are designed to provide program flexibility trimester by trimester. To provide continuity, systematic and coordinated grammatical review is incorporated sequentially into all courses. The text used for this review is Sturges, Cregg, Herbst, *Une fois pour toutes*.

#### 30A—0 Language Review and Contemporary French Life

(4080) Five prepared class periods. For students who have successfully completed *21* but who have need of further instruction in basic language structures. By permission of the Department Chairman.

#### 31—123 Selected Readings

(4101) Four prepared class periods. Reading comprehension skills are developed through a study of texts such as the following: Simenon, *Le Chien Jaune*; Saint-Exupéry, *Le Petit Prince*; Pagnol, *Topaze*; Vercors, *Le Silence de la mer*; Goscinny, Uderzo, *Astérix et Obélix: Le Tour de Gaule*; Camara Laye, *L'Enfant Noir*.

#### 32—3 Village Français

(4113) Four prepared class periods. Using impressions and misimpressions of French and Americans of the other's culture as points of departure, this course at-



tempts to give the student a greater understanding of the French people and their institutions as reflected in the microcosm of a town. Using the student's hometown as a basis of comparison, several French towns are examined in depth, including the provençal towns of Roussillon and Cassis and a town of the student's own choice. The basic text *Wylie Village on Val d'Aure* is complemented by readings, lectures, original documents and both national and regional newspapers and magazine articles. (Mr. Sturges)

### 33-1 French History

(4121) This course concentrates on the main events and personalities from the reign of Louis XIV to the First World War. There is a combination of lectures by the instructor, class discussions, slides and film presentations and student reports. Probable text: *Histoire-Géographie IV* by Pernet and Baleste. (Mr. Anderson)

### 34-1 Intensive Conversation and Phonetics

(4131) Four prepared class periods. A special emphasis on specific aspects of spoken French. Intended for students who understand French rather well but need to gain confidence and fluency in speaking. Dialogues, speeches, debates, interviews, and role-playing are reinforced by study of topical vocabulary, and idiomatic expression. Text: Frautschi and Bouygues, *Pour et contre*.

### 35-2 Written Expression

(4142) Four prepared class periods. Study and writing of basic sentence structures and their integration into paragraphs and compositions. Students writing, to which instructors give close, individualized attention in small classes, is based generally on selected, short readings. The course seeks a balance between different forms of writing, both original and imitative (description, narration, dialogue, exposition, communication). Text: Limouzy et Bourgeacq, *Manuel de Composition française*.

### 36-123 Literature and Film

(4151) Four prepared class periods. Usually two works of fiction are studied along with two films each term. The books and films for the course vary from year to year. In 1978-79 the films and books included: Fall term: Jean Renoir, *Une Part de Campagne*; *La Grande Illusion*; *La règle de Jeu*; de Maupassant, scénario de *La Grande Illusion*. Winter term: Cocteau Clément, *La Belle et la Bête*; François Boyer, *Les Jeux Interdits*. Spring term: Jean-Luc Godard, *Masculin-Féminin* et *Deux ou trois choses que je sais d'elle*; Maupassant, *La femme de Paul* and scénario de *Deux ou trois*

*choses que je sais d'elle*. The films and books for the course are usually supplemented by trips to Boston and books on library reserve. (Mrs. Schorr)

### 39-3 Initiation to the French Theatre

(4173) Four prepared class periods. An active participation course in which the student follows one play from the initial reading through its final production, taking part at each step of the way. Four major phases: Reading, Analysis, Production, Performance. Throughout the course, the vocabulary of French theatrical production is studied and used.

### 40-123 Fourth-Level French

(4181) Four prepared class periods. The course consists of three term-contained units and may include the reading of French classics and the works of modern authors, as well as conversation and composition. The choice of texts in each trimester is determined by the class and the instructor.

### 42-0 French Literature

(4190) Four prepared class periods. The first year of a two-year sequence leading to the Advanced Placement Examination in French Literature, open to students who have completed three trimesters of third-level courses or *French 22* and one third-level trimester course, and to properly qualified new students. It is a transition from the study of language to the study of literature. Emphasis is placed on vocabulary building, written work, and close analysis of major literary works. Texts include: Camus, *L'Etranger*; Voltaire, *Candide*; Ionesco, *Rhinocéros*; Balzac, *Le Colonel Chabert*; and Mauriac, *Thérèse Desquérax*. Permission of the Department Chairman required.

*This course is also offered in the School Year Abroad program in Rennes*

### 43-12 French Civilization

(4201) Four prepared class periods. Students electing these courses should be interested in France's past civilization and cultural achievements. A thematic study is made of the great periods of French civilization from its origins in Celtic Gaul through the end of the 19th century. Areas studied include historical, social, artistic, and literary developments. Each course is a combination of lectures, class discussions, slides, films, and students' oral reports. It is complemented by the reading of short literary and historical selections.

The first trimester begins with an introduction to French geography and then examines ancient Gaul, the era of Charlemagne, medieval society, the Renaissance, and the "Grand Siècle" (17th century). The second trimester studies



the ideas of the philosophers and revolutionaries which influenced European and American life and political institutions. Also discussed are the important social and economic changes brought on by the Industrial Revolution. (Mr. Krivobok, Mr. Herbst)

#### 43-3 Le Monde Francophone: French Civilization Outside of Europe

Four prepared class periods. As an international colonial power France spread her culture throughout the world. The course studies the resistance to and the assimilation of French culture by the native cultures. The student has the opportunity to study the 17 French civilizations in West, Equatorial, and North (Arab) Africa as well as the French civilization of the Antilles (Haiti, Martinique, and Guadeloupe). In addition to geographical, social, and historical study, selections are read from authors such as President Senghor, Cheikh Hamidou Kane, Aimé Césaire, Guillaume Oyo M'Bia, Birago Diop. (Not offered in 1980-81. Offered in 1981-82.)

#### 43-3 Québec et les Québécois

(4203) Four prepared class periods. Because of its geographical situation Phillips Academy has a unique opportunity to merge the study of French with direct observation of and participation in the North American "French experience" which is just across the nearby Canadian border as well as in the many communities surrounding Andover with large Franco-American populations. Some amount of theory is balanced with observation and analysis of every-day life in Québec province to understand its political, economic, and social institutions, and such areas as religious, educational, and artistic life. Emphasis is on a close study of the media of the province as well as personal involvement through liaison with Québec schools, students, and newspapers, and through contact with French-speaking areas of Massachusetts and New Hampshire. The course may culminate in a trip to Québec. (Mr. Dix) (Offered in 1980-81. Not offered in 1981-82.)

#### 44-1 Advanced Conversation and Phonetics

(4221) Four prepared class periods. Intended for students who understand, read and write French well and who already speak at a competent level, but who feel the need for further drill in conversational patterns, and idiomatic expression. Diction, intonation and elocution are also stressed through memorization, role-playing, speeches, and debates. Text: Knox, *Rencontres*.

#### 51-123 Advanced French Language

(4261) Five prepared class periods. A course designed to meet the requirements of the Advanced Placement Examination in French Language. Open to students who have completed three terms of fourth-level French and to qualified new students. Emphasis is placed on vocabulary, conversation, composition, and reading, not only in literature, but in current newspapers and periodicals. The choice of texts is determined by the class and the instructor.

#### 52-0 Advanced French Literature

(4270) Five prepared class periods. The second year of a two-year sequence, open with departmental permission to students who have completed French 42 and to others who are properly qualified. This course is an introduction to French literature and prepares for the Advanced Placement Examination in French Literature through the close reading of representative texts including: La Fontaine, *Fables*; Molière, *L'Avare*; Racine, *Phèdre*; Beaumarchais, *Le Barbier de Seville*; Musset, *Lorenzaccio*; Flaubert, *Un Coeur Simple*; Baudelaire, *Les Fleurs du Mal*; and poetry of Hugo, Rimbaud, Apollinaire, Césaire and Damas.

#### 60-123 Contemporary French Literature

(4281) Two prepared class periods plus one weekly (4282) (90 minute) seminar. The course studies selected novels and dramas representative of the Pre-War and Post-War eras. Emphasis is on particular writers and what they add to our understanding of the human condition in our times. Authors studied may include: Proust, Gide, Céline, Malraux, Mauriac, Aragon, Saint-Exupéry, Giono, Montherlant, Anouilh, Giraudoux, Aymé, Camus, Sartre, Robbe-Grillet, and Daninos.

#### (9001) Senior Projects

(9002) Qualified seniors may undertake independent study projects in French under the direction of a faculty supervisor. Those who wish to do apprentice teaching during either the Winter or the Spring Term will study the techniques and methods of modern language instruction and will practice, under careful supervision, in beginners classes.

## German

The German Department offers a six-year course of study with the purpose of developing the ability to understand spoken German, facility in speaking, reading fluency, and the ability to write German correctly. The more advanced courses give an introduction to German literature since the eighteenth century and a survey of German history, culture and geography. German is used as the classroom language. Extensive use is made of the Language Laboratory.

Students who demonstrate unusual aptitude and interest during the first year of study are invited to enter special accelerated sections. Those who complete the accelerated sequence may meet the diploma requirement after seven trimesters as they move directly into fourth-year courses.

### 10-0 First-Level German

(4300) Five prepared class periods. The beginning course seeks to develop aural comprehension and oral expression, as well as a foundation in the basic grammar. The basic patterns of the language are practiced by repetition and variation. Text: Schulz-Griesbach, *Deutsche Sprachlehre für Amerikaner*.

### 12-23 First-Level German (Honors) (T2) (a two-term commitment)

(4305) Five prepared class periods. Especially competent students will be recommended for this accelerated course at the conclusion of one trimester of *German 10*. Successful completion of two terms of 12 enables one to enter 22. Texts are essentially the same as those used in *German 10* and *German 20*.

### 10-20-0 German

(4310) Five prepared class periods. Open to Seniors, and to Uppers with permission. A year-long accelerated introductory course covering in one year the essential material of *German 10* and *German 20*.

### 20-0 Second-Level German

(4320) Five prepared class periods. The systematic study of basic patterns and grammar is continued with Schulz-Griesbach, *Deutsche Sprachlehre für Amerikaner*. Both close and comprehensive reading of modern German prose is practiced extensively. Elementary writing is introduced at this level. Some of the books read include Kessler, *Kurze Geschichten*; Schnitzler, *Der blinde Geronimo*; Remarque, *Drei Kameraden*; Birschel, *Kinder- geschichten*.

### 22-0 Accelerated Second-Level German

(4330) Five class periods. A year-long accelerated course open to students who have successfully completed *German 12* and to other qualified students with departmental permission. Successful completion enables students to advance to fourth-level courses. Texts and reading materials are essentially those of *German 20* and *German 30*.

### 30-0 Third-Level German Selected Readings

(4340) Four prepared class periods. Throughout the year grammar is reviewed in Sparks and Vail, *German in Review*. Some of the books read include Brecht, *Kalendergeschichten*; Dürrenmatt, *Der Richter und Sein Henker*; Aichinger, *Der Gefesselte und andere Kurzgeschichten*; Dürrenmatt, *Der Besuch der alten Dame*; Ödön von Horváth, *Jugend ohne Gott*. Emphasis is placed on reading comprehension, vocabulary building, and oral work.

### 40-123 Advanced German Literature

(4351) Five prepared class periods. Introduction to German Literature. This course prepares (4352) for the Advanced Placement Examination. Through detailed stylistic analysis of a number of outstanding works, the students gain an acquaintance with some of the major authors and most significant trends in German literature since 1750. The works read include Brecht, *Der kaukasische Kreidekreis*; Büchner, *Woyzeck*; Dürrenmatt, *Die Physiker*; Hauptmann, *Bahnwärter Thiel*; Hesse, *Siddhartha*; Kafka, *Die Verwandlung*; Mann, *Tonio Kröger*; and selected poems from Goethe to the present.

### 50-123 Fifth-Level German

(4361) Four prepared class periods. Contents vary according to the needs and interests of the students. (4362) (4363)

### 60-123 Sixth-Level German

(4371) Four prepared class periods. Contents vary according to the needs and interests of the students. (4372) (4373)

### (9001) Senior Project

(9002) Under the guidance of a member of the German Department, a Senior has the opportunity (9003) to do special work in German. It may include supervised teaching of an elementary class, or work of his own choice in a special field.

## Italian

### 10-20—0 Italian

(4400) Five prepared class periods. Open to Seniors. Open to Uppers by permission of the instructor. A year-long accelerated introductory course covering two years in one. Because students come with a background in other languages, progress in speaking and reading is very rapid. A basic college text is supplemented by selected readings, radio recordings, and libretti and music of Italian opera. (Mr. Pascucci)

## Russian

The Russian Department offers a course of five years of study. An accelerated sequence enables able students to complete four years' work in three, and to receive four years of credit. There is also an accelerated course for Uppers and Seniors.

Before studying Russian, many people consider it strange and difficult; but its alphabet and vocabulary have the same sources as those of English, and it follows the same principles of grammar. Continuous oral, visual, and instructional use quickly makes Russian familiar and enjoyable. Communication in Russian and knowledge of Russian culture are essential for productive interaction with the U.S.S.R. in technology and science, and for achieving controlled, responsible international relations.

It is the policy of the Russian Department to attain exclusive use of Russian in the classroom, instructional and conversational, no later than mid-way through the first year's study.

This well-established program guarantees confident progress in personal skill in speaking, aural comprehension, reading and writing.

### 10—0 Introduction to Contemporary Russian

(4500) Five prepared class periods. Open to Juniors, Lower Middlers, and Upper Middlers. A year-long elementary course in speaking, listening, reading and writing. Texts: Kostomarov, *Russian for Everybody* (Russky Yazyk-Moscow); reference materials.

### 12—23 Contemporary Russian (Honors) (T2) (a two-term commitment)

(4515) Five prepared class periods. Especially competent students will be recommended for this accelerated

course at the conclusion of one trimester of *Russian 10*. Successful completion of two terms of 12 enables one to enter 22. Texts are essentially the same as those used in *Russian 10* and *Russian 20*.

### 10-20—0 Intensive Contemporary Russian

(4520) Five prepared class periods. Open to Seniors. Open to Uppers by permission of the instructor. A year-long accelerated introductory course covering two years in one. Texts: von Gronicka, *Essentials of Russian* (Prentice-Hall); Kostomarov, *Russian for Everybody; Graded Russian Readers* (Heath).

### 20—0 Intermediate Contemporary Russian

(4530) Five prepared class periods. Completion of the elementary course with continued emphasis on active use. Texts: Kostomarov, *Russian for Everybody*; reference materials and selected reading materials.

### 22—0 Intermediate Contemporary Russian (Honors)

(4540) Five prepared class periods. A year-long accelerated course open to students who have successfully completed *Russian 12* and to other qualified students with departmental permission. Successful completion enables students to advance to fourth-level courses. Texts and reading materials are essentially those of *Russian 20* and *Russian 30*.

### 30—0 Russian Expression: Conversation and Composition

(4550) Four prepared class periods. Reading, conversation and writing. Texts: Khavronina, *Russian as We Speak It* (Progress-Moscow); *Reading for Meaning* (Harcourt); plus cultural and scientific selections. Reference Grammar: Pulkina (Vysshaya Shkola-Moscow).

### 40—123 Advanced Russian Composition and Russian Classical Literature

(4561) Four prepared class periods. Further work in conversation and writing, and in introduction to the "Golden Age" (19th Century) of Russian literature with selected readings from Pushkin, Chekhov, Gogol, Tolstoy and other writers. Texts: Muravyova, *Verbs of Motion in Russian* (Progress-Moscow); Josselson, Parker, *From Pushkin to Pasternak* (Prentice-Hall); Reference Grammar: Pulkina (Vysshaya Shkola-Moscow).

### 50—123 The Soviet People, Their Heritage and Literature

(4571) Four prepared class periods. Fall Term: RUSSIAN LITERATURE, readings from prerevolutionary and contemporary authors.



Winter Term THE SOVIET PRESS, a view of Soviet life and culture as reflected in the media. The text is a subscription to a major Soviet newspaper.

Spring Term SOVIET PROTEST LITERATURE, a view of protest in the Soviet Union from the works of Solzhenitsyn, Yevtushenko, Okudzhava, Bulgakov, and others. Authors vary according to needs and interests of the class.

(9001) Senior Project

(9002) Under the guidance of a member of the Russian

(9003) Department, a Senior has the opportunity to do special work in Russian. It may include supervised teaching of an elementary class or work of his own choice in a special field.

## Spanish

The Spanish Department offers a six-year course of study. Students who demonstrate unusual ability and interest during the first year are invited to join an accelerated sequence which enables them to complete four years of work in three and thus receive four years of credit. The language of the classroom is Spanish, and extensive use is made of the Language Laboratory. Students learn to understand, speak, read, and write the language, and also are given a comprehensive introduction to the literature and culture of Spain and Hispanic America.

10—0 Beginning Spanish

(4600) Five prepared class periods. Making use of the audio-lingual approach the course stresses understanding and speaking. A minimum of English is used in the classroom. The basic texts are: *Español. A Descubrirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill) and *Cuaderno de Ejercicios* by Schmitt, Woodford and Marshall (McGraw-Hill). They are supplemented by language laboratory practice and other audio-visual materials. Exercises in reading and writing are introduced after the student has acquired confidence in oral expression.

10A—0 Basic Spanish

(4610) Five prepared class periods. This course begins Winter Term. Designed for students who may profit from a more gradual pace in foreign language study, the course aims to enable the students to better assimilate the structure of the language and to acquire acceptable patterns of speech. Eligibility for this course is determined by an agreement reached by the student and the foreign

language teacher in consultation with the chairman of the foreign language department involved. Employing a variety of materials, the syllabus for the course will closely follow that of *Spanish 10*.

11—0 First-Level Spanish

(4620) Five prepared class periods. For new students who have been exposed to Spanish but who are not fully qualified for *Spanish 20*. The course stresses the oral use of the language. Outstanding performance in this course qualifies the student for *Spanish 22* or *Spanish 30*. Text: *Español. A Descubrirlo* by Schmitt, Woodford and Marshall (McGraw-Hill) and selected readings. They are supplemented by language laboratory practice and other audio-visual materials.

12—23 Accelerated First-Level Spanish (T2) (a two-term commitment)

Five prepared class periods. An accelerated course beginning in the Winter and offered to students in *Spanish 11* who are doing honors work and to students in *Spanish 10* who are doing high honors work. Text: *Español. A Descubrirlo* (see *Spanish 10*) and selected readings.

10-20—0 Accelerated First and Second-Level Spanish

(4630) Five prepared class periods. Open to Seniors, and to Upper Middlers by permission of the instructor. A year-long accelerated introductory course covering two years in one. The basic texts are: *Spanish One* (Second Edition), by Jones Ruiz Salvador (Van Nostrand); *Tres Farsas Contemporáneas y Un Secuestro* (see *Spanish 22*); *Cuentos y Microcuentos*, by Guillermo Castillo-Feliú (Holt, Rinehart & Winston) and selected poems and songs.

20—0 Second-Level Spanish

(4640) Five prepared class periods. A continuation course that emphasizes speaking, reading, simple theme writing, and vocabulary building, including the use of synonyms and antonyms. Oral fluency is stressed in accordance with the principles of the audio-lingual method. The basic text is: *Adelante* (see *Spanish 22*). Readings beyond the basic text are selected to meet the needs of each class.

22—0 Accelerated Second-Level Spanish

(4650) Five prepared class periods. Open to students who have completed *Spanish 12*. It covers the equivalent of the material of *Spanish 20* and *30*. Successful completion enables a student to enter *Spanish 40* or *42*. The basic texts are: *Adelante* by Eduardo Neale-Silva, Robert L. Nicholas (Scott-Forseman); *Cuentos y Microcuentos*, by Guillermo Castillo-Feliú (Holt, Rinehart & Winston); *Tres*



*Farsas Contemporáneas y Un Secuestro*, by Martínez-Ballesteros, Rubio and Whitehead (Independent School Press) and selected readings. In Spring Term students occasionally read and stage a one-act play in Spanish.

### 30A—0 Spanish Language Review

(4660) Four prepared class periods. For students who have successfully completed *Spanish 20*, but have need of further reinforcement in basic language structures. The goals of the course are achieved through the use of an intermediate grammar text, and readings which are selected according to the needs of the students.

### 31—123 Aspectos de la cultura y civilización del Mundo Hispánico

(4671) Four prepared class periods. An intermediate course which continues to develop oral and aural skills, as well as facility in written composition through a social-studies approach to the culture and civilization of the Hispanic world. In the previous courses, the student must have shown a strong ability for self-expression and an interest in historical and cultural themes.

### 32—123 Introduction to Literature

(4681) Four prepared class periods. An intermediate course which continues to develop oral and aural skills, as well as facility in written expression. Class discussion is based on representative works of literature to be found in the Spanish speaking world. One section emphasizes literary readings, and another emphasizes conversation and composition.

### 35—2 Winter Term in Mexico

(4692) Students enrolled in a Spanish course at the 22 level or above may elect to spend the Winter Trimester in Mexico. Interested students should see their Academic Advisor to be sure that their other courses and their diploma requirements will permit them to be off campus for that trimester. Final approval for participation in the program will be made by the Dean of Studies. Students intending to enroll in this course will do special research during the Fall Trimester under the direction of Mr. Couch and other members of the department.

### 40—123 Spanish: Language, Literature, Culture

(4701) Four prepared class periods. The purpose of the course is to review, refine and expand speaking, reading and writing skills and to further the student's interest in the Hispanic world through reading in history and literature.

Students showing marked ability will be eligible to take the A.P. examination in the Spanish language. Texts used

in the past have been: *Tesoro Hispánico*, ed. Lado et al. (McGraw-Hill); *El Burlador de Sevilla*, by Tirso de Molina (Taurus Ediciones); *Doña Bárbara*, by Rómulo Gallegos (Fondo de Cultura Económica); *Repaso de Gramática*, by Soto (Harcourt, Brace, Jovanovich).

### 42—0 Spanish and Spanish-American Literature

(4710) Four prepared class periods. The course presupposes an extensive knowledge of grammar and vocabulary and a reasonable fluency in conversation. Constant use of the Spanish language in classroom discussions and in written assignments is required. Particularly able students may take the Advanced Placement Examination in Spanish Literature if they so desire. Texts: Representative works of Pérez Galdós, Unamuno, F. García Lorca, J.L. Borges, Pablo Neruda, and supplementary titles chosen to support the study of these major authors.

### 52—0 Advanced Spanish and Spanish-American Literature

(4720) Four prepared class periods. The course is open to students who have the equivalent of *Spanish 40* or *42*, or with the permission of the instructor. This course prepares the student for the Advanced Placement Examination in Spanish Literature or Language. The course is an in-depth study of two significant authors each term. In the past the following texts have been used: *Cien años de soledad*, by García Márquez (Editorial Sudamericana, Buenos Aires); *Historia universal de la infamia*, by Borges (EMECE, Argentina); *En torno al poema*, ed. García Montoro and S.A. Rigol (Harcourt, Brace, World, Inc.); *Tres novelas ejemplares, y un prólogo*, by Unamuno (Austral); *Antología Esencial*, by Pablo Neruda (Losada); *Nazarín*, by Pérez Galdós; *Cinco Maestros*, by Coleman (Harcourt, Brace and World, Inc.); *Fulgor y Muerte de Joaquín Murieta*, by Pablo Neruda.

### 60—123 Concentrated Literary and Cultural Topics in Spanish

(4731) Four prepared class periods. Contents vary according to the needs and interests of the student.

### (9001) Senior Projects

(9002) Qualified Seniors may undertake projects of independent study in Spanish under the direction of a faculty advisor.

See also *Latin American Studies* (History 409) listed under *History and the Social Sciences*.

## Music

The diploma requirement in Music for entering Juniors and Lower Middlers is one trimester of Music, which is satisfied by *The Nature of Music* (Music 20). This course is also a prerequisite for courses in the History and Appreciation category, but is not a prerequisite for the Applied category. Entering Upper Middlers must take a trimester course in Music or Art at the Academy: *Music 20* or its equivalent. Entering Seniors need not take a Music course; Exemption from *Music 20* as a prerequisite is granted on the basis of an exam and/or by permission of the Department Chairman. However, there is no exemption from the Music diploma requirement.

### APPLIED

#### 10-1 Beginning Instruments

- (6101) Three prepared class periods. Open to Juniors, Lower Middlers, and Upper Middlers. Each section of instruments meets three times a week. On non-class days individual practice is required. Each section is taught separately without mixing woodwinds, brass, or strings.
- (6102)
- (6103)

After completion of the course, a student should be able to progress to individual private instruction. Instruments taught: flute, clarinet, trumpet, trombone, tuba, and orchestral strings. Limited enrollment.

A fee of \$10 per term is charged for rental of school-owned instruments.

#### 11-123 Recorder Ensemble

- (6111) Meeting four times a week, with outside preparation. Prerequisite: *The Nature of Music* (Music 20) or permission of the instructor. Open to all classes.
- (6112)
- (6113)

This course is designed for the continuation of recorder skills developed in *Music 20*.

#### 12-123 Brass Ensemble

- (6121) Meeting three times a week, with outside preparation. Open to all classes. Open to qualified intermediate or advanced players by permission of the instructor. The group has an opportunity to perform in Chapel and in other concerts. The ensemble is made into different types of groups, such as trios, quartets, quintets, and double brass choirs, to perform Renaissance, Baroque, and contemporary brass literature.
- (6122)
- (6123)

#### 13-123 Woodwind Ensemble

- (6131) Meeting three times a week, with outside preparation. Open to all classes. Open to qualified intermediate or advanced players by permission of the instructor. The ensemble is organized to allow a unique and comprehensive experience in the study and performance of chamber music repertory, in varied sizes of ensembles. Playing chamber music is an essential part in the development of the woodwind student.
- (6132)
- (6133)

#### 14-123 String Ensemble

- (6141) Meeting three times a week, with outside preparation. Open to all classes. Open to qualified intermediate or advanced players by permission of the instructor. These students find a wealth of fine music written for various combinations of instruments, ranging from the relatively easy to the very difficult. Over the centuries composers have considered the strings a favored group. Chamber music is a particularly rewarding experience and is valuable training for all string students.
- (6142)
- (6143)

#### 15-123 Fidelio Society

- (6151) Pass/Fail. Three prepared periods. Open to all classes. This small group of mixed voices is selected from the *Chorus* (Music 17). It performs on numerous occasions throughout the year both on *Chorus* programs and on its own. Its repertoire includes music of all types, early and modern, sacred and secular. Membership is by audition and is conditional upon good standing in the *Chorus*.
- (6152)
- (6153)

#### 16-123 Band

- (6161) Two double periods. Open to all qualified students. Tryouts are held any time before the beginning of a term to test the student's ability and to arrange for seating. Volunteers from all classes who are not enrolled for credit are urged to join, on an extra-curricular basis. There are some school-owned instruments available for student use. All types of music for wind ensemble are rehearsed. It includes marches as well as classical, popular, and show music. Much sight reading is done, and at least one public concert per term is given.
- (6162)
- (6163)

#### 17-123 Chorus

- (6171) Two double periods. Open to all qualified students. The *Chorus* is the Academy's major singing group, comprised of mixed voices, and performs a variety of choral works, both sacred and secular. No previous choral experience is necessary; just a desire to work hard and enjoy a unique choral experience.
- (6172)
- (6173)

**18—123 Chamber Orchestra**

(6181) Two double periods. Open to all classes. Most  
 (6182) of the music played is for string orchestra; the  
 (6183) best winds in the school are invited to join for  
 larger works. One concert a trimester is  
 regularly scheduled and the orchestra also plays at least  
 once a trimester in the Sunday Chapel service. The  
 membership includes several students from the community  
 who want orchestral experience that is not available in their  
 own schools, and several members of the faculty. While  
*Chamber Orchestra* may be elected as a credit-bearing  
 course, it is also an activity in which all are invited to par-  
 ticipate.

**19—123 Private Instrumental and Vocal Lessons**

(6191) Weekly instruction in keyboard (including jazz  
 (6192) piano, harpsichord, organ, and carillon), or-  
 (6193) chedral and band instruments, in classical  
 guitar, or in voice. For private instruction,  
 covering piano, organ, voice, classical guitar, orchestral  
 and band instruments, there is a separate charge of \$100.  
 per term for half-hour instruction or \$160. per term for full-  
 period (50 min.) lessons and a nominal fee for the use of  
 practice pianos and organs. A fee of \$15 per term is charged  
 for private rental of school-owned instruments. (NOTE:  
 Beginners must take two consecutive terms of private in-  
 struction in order to receive academic credit.)

**20—1 The Nature of Music**

(6201) Five prepared class periods. This course is  
 (6202) designed to give a general background in the  
 (6202) history, theory, and practical aspects of music.  
 (6203) Music from its earliest sources to the present is  
 (6203) examined. Also, the role of music and the arts  
 in each of its cultural stages is studied. Stu-  
 dents receive some first hand experience with musical in-  
 struments. No previous experience in music is required.

**HISTORY AND APPRECIATION**

The following sequence of courses in the history and  
 literature of music is team-taught by members of the  
 department. The sequence takes one and two-thirds years  
 to complete. Each course is term-contained.

*The Nature of Music (Music 20)* is a prerequisite for all  
 courses in this section.

**22—3 Medieval and Renaissance Music (to 1600)**

(6223) Four prepared class periods. Open to all  
 classes. This course surveys what is commonly  
 called Early Music, from the earliest known chant to the  
 fully developed Renaissance motet and madrigal. Much of  
 the music from this period was written "for the glory of

God." But the secular side of things is considered, too,  
 especially the rise of instrumental music (for harpsichord,  
 recorder, etc.) and the madrigal, with its texts of love,  
 nature, and humor.

**23—2 Baroque Music (1600-1750) (Not offered 1980-81.)**

Four prepared class periods. Open to all classes. This  
 course surveys music from the first opera to the late works  
 of Bach and Handel. The grand, dramatic style known as  
 Baroque is seen in its most lavish form, opera, in choral  
 masterpieces such as the *Messiah*, in sacred music such as  
 Bach's organ works, and in instrumental music such as the  
 Brandenburg Concertos. The settings for this music, from  
 the relatively humble churches of Bach's Leipzig to the  
 magnificent Palace of Versailles, are considered.

**24—3 Classical Music (1750-1820) (Not offered 1980-81.)**

Four prepared class periods. Open to all classes. In this  
 relatively short period grew and flourished what is con-  
 sidered the Classical style of Western music, and with it  
 came the newly-created symphony. Haydn, Mozart, Beet-  
 hoven, and others wrote in this new form as well as com-  
 posed concertos, sonatas, string quartets, and some of the  
 older forms, such as opera and religious music. The  
 historical backdrop to this music—the Enlightenment, the  
 Revolution (American and French), and the Napoleonic Era  
 —is also considered.

**25—1 Romantic Music (1820-1900)**

(6251) Four prepared class periods. Open to all  
 classes. The Romantic period is an era of great  
 social, economic, and political change. From the later  
 works of Beethoven through the works of Debussy, we  
 trace the development and change of the "classical" struc-  
 tures. Schubert, Schumann, Mendelssohn, Brahms, Cho-  
 pin, Liszt, Berlioz, Wagner, Mahler, and Strauss are some  
 of the composers that are examined.

**26—2 Twentieth Century Music (1900-Present)**

(6262) Four prepared class periods. Open to all  
 classes. The twentieth century is a period of  
 abstraction, and reaction, in art and music. New rhythmic  
 and harmonic languages were developed and used. This  
 course traces the development of the twentieth century  
 style through the works of Debussy, Ravel, Scott Joplin,  
 Stravinsky, Bartok, Ives, Schoenberg, Partch, and other  
 major figures in the twentieth century music world.



27-123 Independent Study in the History and Literature of Music  
 (6271) Four prepared class periods. Open to Upper Middlers and Seniors. A student who has taken at least one of the other courses in this sequence may, with the permission of the instructor, pursue an independent course of study in either a particular type of music or a particular period of music. This should be related to the period or periods covered in the student's previous course work in this sequence.

28-1 Jazz  
 (6281) Four prepared class periods. Open to Upper Middlers and Seniors. A study of the history of classic jazz, dating back to its roots in Africa.  
 (6282) its development in New Orleans, its spreading to New York and Chicago, and its influence on music today. A survey of ragtime, blues, Dixieland, fox trot, on through the big band era of the thirties, concluding with the jazz rock of today. A study of the influence and contributions of the major personalities such as W.C. Handy, Jelly Roll Morton, Louis Armstrong, Basie, Whiteman, Gershwin and the rest of the greats.

29-1 Popular Music in America  
 (6291) Four prepared class periods. Open to all classes. A course investigating popular music and its significance in American culture. A variety of styles and genres will be studied, including the American popular song, rhythm and blues, music for television, music for the film, country music, Rock 'n Roll, and Hard Rock.

## THEORY

32-123 Conducting  
 (6321) Hours to be arranged. Open to Upper Middlers and Seniors. A course in conducting and basic musicianship. This course is designed to give the student an introduction to the conductor's world through developing conducting skills and score analysis.

33-1 Theory of Music I  
 (6331) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and Seniors. This course offers an introduction to harmonic progression, triads, modes, rhythmic coordination with dictation. Some original work is also expected.

34-2 Theory of Music II  
 (6342) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and Seniors. Prerequisite: *Theory of Music I* or permission of the instructor. This course deals with harmonic progressions, modulations, figure bass, and an introduction to counterpoint and harmonic analysis.

35-3 Theory of Music III  
 (6353) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and Seniors. Prerequisite: *Theory of Music II* or permission of the instructor. This course includes advance figure bass, more complex chords, and a brief introduction to nineteenth and twentieth century techniques.

36-1 Electronic Music  
 (6361) Four prepared class periods. Prerequisite: *The Nature of Music (Music 20)* or permission of the Department Chairman. A course for the benefit of those who seek to expand their domains of creativity by understanding and utilizing the conceptual approaches inherent in electronic music synthesizers and related equipment. Using a practical approach, the course begins with the care and feeding of the tape recorder and proceeds to the functioning and operation of electronic music modules. A lab fee of \$15.00 is charged for the use of the synthesizer.

40-123 Advanced Techniques in Electronic Music  
 (6401) Four prepared class periods. Prerequisite: (6402) *Electronic Music (Music 36)*. A course designed for the continuation of the skills and techniques developed in *Music 36*. A lab fee of \$15.00 is charged for the use of the synthesizer.



## Philosophy and Religious Studies

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundation of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered at a variety of levels. All courses are elective and involve four prepared class periods.

### 20—1 Biblical Narrative: The Personal Dimension (Not offered 1980-81.)

Four prepared class periods. Open to Juniors, Lower and Upper Middlers, and Seniors. Adam and Eve, Cain and Abel, Abraham and Isaac, Jacob and Esau, Rachel and Leah, Joseph and his brothers, David, Solomon, Elijah, Esther—these and numerous other Biblical names are closely associated with our Western religious traditions. Many of these are prototypical religious figures, with a sense of the Divine as well as of personal mission. A few are rather the reverse, oblivious to the Divine dimension and opposers of the heroes and heroines. Yet all of them are distinct human personalities engaged in adventures and struggles, loves and rivalries, feelings of joy and of deep sorrow. It is this human dimension which, together with the mythic and personal meanings today, is the focus of this course. (Rabbi Gendler)

### 21—3 Introduction to Ethics: Discernment and Decision (7213)

Four prepared class periods. Open to Juniors and Lower Middlers. Rooted in concrete issues and experiences of everyday living this course provides an introduction to the skills of discernment. Drawing case studies from literary and topical sources, bioethics, law and education, the class will critically investigate the often unspoken presuppositions that give rise to moral decision. (Dr. Avery)

### 30—3 Introduction to Non-Western Religions

(7303) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. This course provides a brief introduction to four of the world's major religions: Islam, Hinduism, Buddhism, and Taoism. Huston Smith's classic, *The Religions of Man*, is the text. Additional readings are drawn from basic religious texts of the traditions. (Rabbi Gendler)

### 31—1 Memory and Manuscript: the New Testament

(7311) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. Sacred writings make present to a people those things they most need to remember. This course provides a critical introduction to the origin, purpose and interpretation of the writings of the New Testament. (Dr. Avery)

### 32—2 Post-Biblical Jewish Thought: Responses to the Holocaust (7322)

Four prepared class periods. Open to Lower and Upper Middlers and Seniors. An exploration of the holocaust through diaries, memoirs, works of fiction, poetry, and later reflections on the phenomenon.

Questions to be dealt with will include: what was it like for the victims? What was it like for the Nazis? How could it have happened? What elements from Jewish, Christian, and secular tradition contributed to its possibility? What have been some of its effects on our own feelings about life and human beings? How have various Jewish, Christian, and secular thinkers responded to the challenge of this event? (Rabbi Gendler)

### 40—2 Understanding Religion: An Introduction

(7402) Four prepared class periods. Open to Upper Middlers and Seniors and to Lower Middlers with permission of Instructor. From Old Stone Age burial artifacts to the presence of the

Guru Mahariji in the Houston Astrodome, people have tried to make sense out of their existence through religion. What is a religion? What aspects of the human experience does it address? Is it a response to the needs of the individual or of society? Or is it a response to something beyond man? The phenomenon of religion will be examined from the point of view of the person, the community and the transcendent. (Ms. McCaslin)

### 41—1 Views of Human Nature

(7411) Four prepared class hours. Open to Upper

41—2 Middlers and Seniors, and to Lower Middlers with permission of Instructor. A critical examination of existentialism, psychology, biology,

anthropology and transcendentalism in light of the answers they provide to the following questions: Does man have a characteristic nature? What are his basic needs, rights, obligations and values? Is man free? Is man responsible for his actions? Given an understanding of man, how should we structure society to satisfy his needs and take advantage of his potentials? Readings: Jean-Paul Sartre, *Existentialism is a Humanism*; Sigmund Freud, *Civilization and Its Discontents*; B.F. Skinner, *Beyond Freedom and Dignity* and *Walden Two*; Richard Leakey, *Origins*; Sam Keen, *Apology for Wonder*. (Mr. Hodgson)

42-1 Bioethics

(7421) Four prepared class periods. Open to Upper  
42-3 Middlers and Seniors. The growth of the  
(7423) human sciences and their corresponding technologies has increased human control over and thus responsibility for the development of mankind. The course addresses particular issues of life and death, genetic engineering, behavior modification, human research and the allocation of medical resources. At the same time the underlying issue of the relationship between science and ethics is considered. (Dr. Avery)

43-1 Law and Morality

(7431) Four prepared class periods. Open to Upper  
43-3 Middlers and Seniors, and to Lower Middlers  
(7433) with permission of Instructor. A critical examination of an intricate web of problems which arises out of the relationship between law and morality. Questions of concern include: Does society have the right to restrict the behavior of an individual? On what, if any, grounds are such restrictions justifiable? To what degree should society incorporate popular morality into law? Is an individual ever morally justified in breaking the law? If so, under what circumstances and in what fashion? Readings include selections from Plato, Hobbes, R.P. Wolff, Lord Patrick Devlin and Martin Luther King, Jr. Case studies on abortion, pornography, racial and sexual discrimination and civil disobedience. (Mr. Hodgson)

44-2 Nonviolence in Theory and Practice

(7442) Four prepared class periods. Open to Upper  
Middlers and Seniors. The militarily most destructive century in human history, our twentieth century, has also been one in which such men as Gandhi and Martin Luther King, Jr., have successfully applied nonviolence to conflict situations. What is the theory of this approach to human conflict? What are some of its psychological assumptions? What is its religious and human significance? By what means does it operate? What are its prospects for the age ahead? We shall use case histories, the testimonies of those directly involved in such struggles, films, critical and theoretical studies in trying to clarify and comprehend some of these elements of nonviolence. Readings include Joan Bondurant's *The Conquest of Violence* as well as writings of Gandhi and King. (Rabbi Gendler)

45-1 Ethics and Education (Not offered 1980-81.)

Four prepared class periods. Open to Upper  
Middlers and Seniors. Education necessarily involves judgments of value and as a topic continues to arouse much moral fervor. This course examines the ethical presuppositions of some theories of education, considers some specific issues and in particular asks the question: What values, if

any, should be taught? The course provides an opportunity for the student to grow in awareness of and become more actively engaged in the value judgments that form his/her own educational experience. (Dr. Avery)

46-2 Proof and Persuasion

(7462) Four prepared class periods. Open to Upper  
46-3 Middlers and Seniors, and to Lower Middlers  
(7463) with permission of Instructor. A practical introduction to informal logic and to the philosophical study of language. Some of the questions raised are: What is the difference between a good argument and a poor one? What are the common fallacies of thought? What are the limitations of logic? What is the meaning of "meaning" and the truth about "truth"? The course stresses the development of individual skills in argument and includes a critical examination of the patterns of thought one encounters every day in magazines, newspapers and on television. (Mr. Hodgson)

47-1 Moses, Socrates and Jesus: Three Personalities and Their Teachings

Four prepared class periods. Open to Upper  
Middlers and Seniors; to Lower Middlers with permission. An intra-departmental course. Moses, Socrates, and Jesus are three of the most influential figures in Western thought. Around each has formed a religious or philosophical tradition, and their lives and teachings have affected millions through the centuries.

What would a fresh look at these figures reveal? What were the facts of their lives and teachings? How do the documents from their times portray them? What have these men meant to other generations? What issues of personal lifestyles and social values does each pose for us?

Through a combination of lectures, dialogue among the teachers, and small group discussions, these and other comparisons and contrasts of the historical personalities and their visions will be explored. (Dr. Avery, Rabbi Gendler, Mr. Hodgson)

50-2 Existentialism

(7502) Four prepared class periods. Open to Upper  
Middlers and Seniors. The term "existentialism" covers a broad range of attitudes and values that are joined together by an emphasis on human existence. The authors brought together in its name share a characteristic concern for the problems of meaning, identity and choice that confront men and women in everyday life. The lectures, discussions and readings are designed to help us locate and express these problems as they confront each of us in our own lives and to assist in understanding and resolving them by drawing on the experiences and insights of the major existentialist thinkers. Readings: Nikos

Kazantzakis, *Zorba the Greek*; Friedrich Nietzsche, *The Genealogy of Morals*; Jean-Paul Sartre, *No Exit and Being and Nothingness*; Martin Heidegger, *What is Philosophy*; Søren Kierkegaard, *The Sickness unto Death*; Martin Buber, *I and Thou*. (Mr. Hodgson)

51—1 In Search of Justice: from Socrates to Marx

(7511) Four prepared class periods. Open to Upper

51—3 Middlers and Seniors. God, emotion, logic,

(7513) social necessity and economic laws have all been invoked as the final arbiter of justice. The

class will examine the major answers to the problem developed by Plato, Aristotle, Kant, Mill, Marx and others. The course aims to assist critical awareness of the ultimate criteria of one's own evaluations and those of others so that she/he be better equipped to make her/his own contribution to the never-ending search for justice. (Dr. Avery)

52—1 Great Philosophers: Knowledge and Reality

(7521) Four prepared class periods. Open to Upper

52—3 Middlers and Seniors. The great philosophers

(7523) offer us a variety of serious and systematic attempts to answer a set of difficult questions

that perennially face mankind: What is the good life? What are the sources of human experience? What is the relationship between my mind and my body? Does God exist? What is the relationship between reason and reality? This course critically evaluates the responses of Plato, Aristotle, Descartes, Hobbes, Berkeley, Hume, Kant and Mill in an attempt to show the continuing importance of both the questions and their answers. (Mr. Hodgson)

## Physical Education

All Juniors and new Lowerers are required to elect one trimester of P.E. 10 in addition to their regular athletic commitment.

10—1 Physical Education

(9201) Pass/Fail. Limit of 15 students per section. Five

10—2 class periods per week. A course integrating

(9202) health and fitness concepts with self-testing

10—3 and challenge activities; two class periods per

(9203) week are spent using the running track, weight room, ropes course and other areas of the ath-

letic complex. Two class periods are devoted to drown-proofing survival swim technique and C.P.R. training. One period per week is lecture-discussion, requiring some outside reading or other preparation.

## Psychology

The Psychology Department seeks to offer students services and programs that may provide them with the knowledge and understanding to improve the quality of their lives both here at Andover and in the future. Its present curriculum supplements the informal programs offered through Graham House and the residential clusters. Currently we are working with other departments to plan courses to help students improve their understanding of the meaning of health in its broadest, most integrative sense.

30—1 Human Relations

(7111) Pass/Fail. Two double periods. For Uppers

30—2 and Seniors. Limit of fifteen students per sec-

(7112) tion. This is a course in Social Psychology. Its

30—3 topic for study is human behavior in small

(7113) groups. Human beings do most of their living, working, and playing in small groups ranging

in formality from family to classroom groups. The relationships among the members of these groups develop through



similar stages and by common processes which determine to an important extent the effectiveness of the group in achieving its goals. These stages and processes are a response to two basic human needs: the need for belonging and community on the one hand and the need for separateness and individual identity on the other.

The classroom group provides students with a laboratory in which to experience and observe group process. Students read articles in the professional literature and write papers on topics that reflect upon their learning.

### 31-1 Human Sexuality

(7121) Four prepared class periods. An interdisciplinary

31-2 course for Uppers and Seniors designed to

(7122) help students understand the facts of their own

31-3 sexuality from the biological, social and psy-

(7123) chological points of view. The format of the

course is a combination of reading, lec-

ture, discussion, writing and examination. In addition to the biological facts, topics to be covered include misconceptions and mythologies of sexual growth and development, important features of masculine and feminine psychology as they relate to sexual behavior, the relationships between attitudes and beliefs, and sexual conduct.

### 32-1 Introductory Psychology

(7131) Four prepared class periods. For Upper Mid-

32-2 dlers and Seniors. An introductory survey of

(7132) the diverse methodologies and philosophies

32-3 that fall into the broad category of

(7133) "Psychology." The aim of the course is to in-

troduce the student to the many varieties of

Psychological inquiry. Some of the areas covered are: Conditioning and Learning, Cognitive Development, Animal Behavior, Social Psychology, and Personality Theory. The format of the course is a combination of lectures and discussion. A basic text, *Psychology Today, An Introduction*, is used, as well as Calvin Hall's *A Primer of Freudian Psychology* and supplementary reprints from research journals.

## Science

The diploma requirement in science is a year-long course in a laboratory science at the 20 level or higher. Juniors and Lower Middlers may take a three or four-year sequence of science courses which will provide a general cultural understanding of science and give a good background for the continuing study of science in college. Courses at the 40 level or higher involve work beyond the laboratory requirement in science. Courses at the 50 level are at the college level and prepare students for the Advanced Placement examinations. Students who do well in these examinations may be granted credit and/or advanced standing by the college they attend.

In general students are encouraged to take a variety of courses in physical and biological science, and not to specialize in a single branch of science. For students with special interests individual project work for credit is open to Seniors. Such projects are on a Pass/Fail basis and are arranged through the office of the Dean of Studies.

The science courses numbered 10-19 are open to Juniors and Lower Middlers. Able Juniors and Lower Middlers may take upper level courses with the permission of the department chairman.

### SCIENCE

#### Science Introductory Physical Science (IPS)

10-0 Open to Juniors and Lower. Five class  
(8000) periods. A laboratory course in beginning physical science using an expanded version of a syllabus called "Introductory Physical Science." Students explore the nature of matter in its solid, liquid, and gaseous forms. Analyses of mixtures and compounds, and a study of radioactivity lead to an atomic concept of matter. Many experiments are quantitative and require careful recording of data, drawing of graphs, and calculations of results. (Mrs. Whyte)

#### Science Introduction to Biological Science

11-3 Open to Juniors and Lower. Four prepared  
(8013) periods per week. This course is designed for students who have no background in chemistry and are planning to take *Biology 30* to meet the laboratory science requirement. Topics such as acid-base chemistry, bonding, shapes of molecules, the mole concept, and elementary organic chemistry will be covered. There will be laboratory work. (Dr. Minné and Mr. Willand)



**Science 12—2 (8022)** **Introduction to the Geosciences**  
Open to Juniors and Lower. Four prepared class periods. Laboratory work is accomplished during class periods and involves study of satellite and aerial photos, slides, maps and various specimens. Typical areas of study include volcanoes, fossils, earth resources, oceans, gemstones, crystals and earthquakes. (Dr. Wilson)

**Science 14—1 (8041)** **Introduction to Energy**  
Open to Juniors and Lower. Four prepared class periods. This course concentrates on hydroelectric, fossil, nuclear and solar energy, but there is some study of geothermal, wind, batteries and house construction. Certain environmental problems will be included. Some laboratory work is accomplished during various class periods. (Dr. Wilson)

**Science 15—1 (8051)** **Oceanography**  
Four prepared class periods. This is an introductory science course designed primarily for Juniors and Lower who have not taken *Biology 25* or *30* or their equivalent. The 70% of our earth's surface comprising the oceans is examined from a number of physical, chemical, and biological perspectives. Accordingly, we investigate aspects of sea water chemistry, mechanisms of wave propagation and current generation, and interactions among the thousands of living organisms found in or near the sea. Films and slides complement the classroom portion of the course. (Mr. Willand)

**Science 16—3 (8063)** **Ecology**  
Four prepared class periods. Open to Juniors and Lower Middlers. The course is designed to introduce students to the basic concepts of ecology. The material offered explores the meaning of interdependence and interrelationships within environment; population dynamics; trophic levels and energy; adaptation; succession; and the impact of man upon his environment and some of the problems caused by his use and abuse of basic resources. Class material is coordinated with and reinforced by laboratory studies of population growth, computer programs to study environmental problems and pertinent field trips. One of the major objectives of the course is to develop within the student an understanding of and sensitivity to the balance and beauty of nature. (Mrs. Hawkes)

**Science 17—2 (8072)** **Introduction to Zoology**  
Three prepared classes and one unprepared double laboratory period per week. This is a one-term course designed for Juniors and

Lower who have not taken *Biology 25* or *30* or their equivalent. A study will be made of the similarities and differences among the major animal divisions from the most primitive invertebrates to the most complex vertebrates. Areas of concentration will include the basic systems of each phylum (i.e., digestion and reproduction), as well as the ecological role and the evolutionary development of the organism. Lab periods will be used to develop techniques of dissection while studying the anatomy of animals from selected phyla. (Mr. Willand)

**Science 19—0 (8090)** **Science Honors for Juniors**  
Four prepared class periods. Corequisite: Registration in *Math 19* or *Math 20*. This is an honors course for talented Juniors with a strong interest and background in science and mathematics. Students entering this course should have mastered a year of algebra as it is used profusely in solving word problems. There is laboratory work. Successful completion of *Science 19* prepares students for *Physics 30*. The text is *Physics* from the Physical Science Study Committee.

**Science 30—2 (8502)** **Energy and the Future**  
Five prepared class periods. Open to Uppers and Seniors who have either completed or are completing the science requirement. This course is taught by faculty in the Science Division. Its purpose is to study energy in a modern biological, geological, physical-chemical and social context. While several fundamental aspects of science and energy are inspected, time is devoted to issues that transcend mere technology. The course of study considers fossil fuels, nuclear energy, solar, geothermal, wind, tidal, and other sources of energy, biological and ecological aspects of energy, public health, risks, costs, governmental policies and programs. The intent is that through the unifying theme of Energy, students can grasp a broader understanding of their world, as well as perhaps a further glimpse into the present and future of man. (Mr. Cone, Mr. Sarton, and Dr. Wilson)

**Science 35—3 (8553)** **Applied Human Biology**  
An interdisciplinary course for Upper Middlers who have had *Biology 25* or *30* or their equivalent. It is a unique course led primarily by a group of veteran Seniors who were enrolled in it the previous year. Thus, it is self-perpetuating.

Topics covered will vary from year to year, depending upon current interests, but are related to practical areas of human biology such as human sexuality, drug use and abuse, sports psychology, nutrition, emergency first aid, birth control, and sports medicine. Informed students, faculty and staff members, and individuals from outside the community are invited to present lectures and/or lead seminars.

The course is coordinated by a member of the Biology Department. Enrollment is limited and requires written permission of the Coordinator.

# Science 37 Human Biology Seminar

37—3 Four class periods. This course is open to those (8573) Seniors and exceptional Upper Middlers who have taken Science 35 and who have received written permission from the Science 35 Coordinator. Regular class attendance and participation in Science 35 is expected; however, some class time might be devoted to assigned work outside the classroom. Responsibilities include taking an active part in planning and carrying out various segments of Science 35, contacting and arranging for outside speakers, and working closely with the Science 35 students and the course Coordinator.

## BIOLOGY

The Biology department offers two year-long introductory level courses, each of which satisfies the diploma requirement for a laboratory science. Each course meets four times a week for 3 classroom periods and one double-period laboratory session which includes training in the use of the compound and stereoscopic microscopes and other laboratory equipment. Laboratory work requires careful observation, mastery of techniques and accurate recording and interpretation of results. Part of the spring term is set aside for work on individual or group laboratory projects. Juniors who wish to enroll in either *Biology 25-0* or *Biology 30-0* MUST obtain permission from the Department Chairman.

A student entering Phillips Academy as a Lower, Upper, or Senior who wishes to receive credit for and exemption from either basic year-long course (*Biology 25-0* or *30-0*) on the strength of a course taken at the 9th grade level at another school may do so upon passing a validation test to be administered after the student arrives at Andover.

# 25—0 Biology

(8100) This course is intended primarily for Lower Middlers with little previous exposure to science. A topics approach usually centered around laboratory experiences is employed in order to acquaint students not only with fundamental biological principles but also with the methods and techniques used to elucidate them. Attention is paid to the processes by which scientific evidence is gathered, interpreted, and summarized. (This course is not open to Seniors.)

# 30—0 Biology

(8110) This is a survey course for those students with previous exposure to some of the basic principles of science. It stresses the unity of life, rather than the

diversity, by emphasizing the functions common to all living things. It covers, in plants, animals, and microorganisms the fundamental principles of metabolism (including nutrition, gas exchange, materials transport, excretion, and homeostasis), responsiveness and coordination, reproduction and development, genetics, evolution and ecology.

# 44—1 Biology—Human Physiology

(8121) Prerequisite: *Biology 25* or *30*, or their equivalent.

# 44—3

(8123) Three prepared periods and one unprepared double laboratory period. Text: *The Mechanisms of Body Functions*, by Vander, Sherman & Luciano. An in-depth consideration of how the body's coordinated functions result from precisely controlled and integrated activities of specialized cells grouped together in tissues and organs. Systems to be studied include: endocrine, nervous, muscular, cardiovascular and respiratory. Laboratory work will include physiological investigations in each of the above systems and a detailed anatomical study of the cat. A fully-documented research paper is required. (Mr. Bastian)

# 44—2 Biology—Human Physiology

(8122) Prerequisite: *Biology 25* or *30*, or their equivalent.

(Note: *Biology 44-1* is NOT a prerequisite for this course.) The format of the course is the same as for *Biology 44-1*. Topics to be considered include: excretory, digestive and reproductive systems; regulation of organic metabolism and energy balance; defense mechanisms of the body; processing of sensory information. The laboratory work will include: basic techniques in urinalysis and blood work; cardiopulmonary resuscitation certification; basic neurological response testing; a guided tour of Mass. General Hospital. A fully-documented research paper is required. (Mr. Bastian)

# 52—23 Biology (T2) (a two-term commitment)

(8195) Prerequisites: One year of biology and one year of chemistry or physics; either of the latter two courses may be taken concurrently. Preference given to Seniors. Four prepared class periods and one double, unprepared laboratory period. In addition to a review of basic biology, new material is presented as the course progresses. The combination of review and new work prepares students for the Advanced Placement Examination of the College Entrance Examination Board.



## CHEMISTRY

## 25—0 Elementary Introductory Chemistry

(8210) Prerequisite: Completion of *Mathematics 10* or the equivalent. For Lower Middlers and Upper Middlers. Three prepared periods and one unprepared, double laboratory period. The course includes a systematic study of matter and the changes it undergoes. Emphasis is placed on the reasoning involved in the development of modern theory and general concepts rather than memorization of descriptive chemistry. Laboratory work is closely related to topics covered in recitation.

## 30—0 Introductory Chemistry

(8220) Prerequisite: Completion of *Mathematics 20* or the equivalent. Three prepared periods and one unprepared, double laboratory period. The course is designed for students with more maturity and mathematical background than those taking *Chemistry 25*. As in that course, the modern theoretical framework of chemistry is emphasized, and the laboratory work is closely related to topics covered in recitation. These topics are treated in greater depth and with more emphasis on quantitative rather than qualitative answers.

## 42—2 Research in Chemistry

(8232) Prerequisite: *Chemistry 25* or *Chemistry 30* completed with distinction, and permission of the instructor. One prepared period and three unprepared, double laboratory periods, or the equivalent. Each student selects a research project in consultation with the instructor and then carries out the necessary work. (Dr. Minné)

## 43—3 Elementary Organic Chemistry

(8243) Prerequisite: Completion of either *Chemistry 25* or *30*. Three prepared class periods, one unprepared, double laboratory period. Students interested in medical or biological fields or in additional chemistry must generally wait until the college sophomore year before studying organic chemistry, the chemistry of carbon compounds. This course is a prior introduction to this critically important and fascinating subject.

Organic chemistry is largely non-mathematical and descriptive in nature. Students will use a condensed "mini-course" text, learn many of the laboratory techniques unique to organic chemistry, make use of three-dimensional plastic molecular models, and gain a sound background in nomenclature, functional groups, bonding, simple mechanisms, typical reactions, and infra-red spectra. (Dr. Wilson)

## 44—1 Stereochemistry

(8251) Prerequisite: Completion of *Chemistry 25* or the equivalent. Three prepared periods and

two unprepared, double laboratory periods. For students who wish to learn more chemistry without aiming for advanced placement. This course is an introduction to stereochemistry, the study of the symmetry and shapes of organic and inorganic molecules. In the classroom an historical approach will show how the chemists of the last century (Pasteur, Kekule, Van't Hoff, and Fischer) were able to deduce the shapes of molecules in a simple, understandable way, long before atomic orbitals and electronic theories were dreamed of. The course will also show how modern electronic theory has been adapted to agree with the shapes which the older chemists had already established. The laboratory program is a comprehensive series of related experiments involving synthesis and analysis and finally illustrating the importance of stereochemistry to living organisms. (Dr. Rees)

## 52—23 Advanced Placement Chemistry (T2) (a two-term commitment)

Prerequisites: *Chemistry 25* or *Chemistry 30* completed with distinction and a year of physics, which may be taken concurrently. Four prepared periods and one unprepared, double laboratory period. The course is for students who wish to prepare for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.

## 55—0 Honors Introductory Chemistry—Advanced Placement

(8280) Prerequisite: One year of physics. Three prepared periods for recitation and two unprepared, double laboratory periods. This course is open to a limited number of able students, by invitation, who have strong scholastic records in mathematics and physics. No prior course in chemistry is expected. It is essentially the equivalent of a first-year college course, and prepares students for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.

## PHYSICS

## 25—0 Physics

(8310) Five class periods, one unprepared. Open primarily to Lower Middlers. An introductory course in the basic concepts of physics. A less rigorous course than *Physics 30*, it is designed for students with latent mathematical maturity. Students should have completed one year of algebra before enrolling. Successful completion of the course prepares the student for the College Board Achievement Test in Physics.

## 30—1 College Physics

(8321) Five class periods. Co-requisite: Registration in at least *Mathematics 30* or its equivalent. A

non-calculus B-level Advanced Placement physics course for students with ability in mathematics and science, this first term is a study of classical mechanics (including rotational dynamics and physical pendula) with extensive laboratory work an integral part of the course. *Physics 30-1* (or equivalent) is a prerequisite for *Physics 30-23 (T2)*. Text: *College Physics*, by Franklin Miller.

**30—23 College Physics (T2) (a two-term commitment)**

(8325) Prerequisite: *Physics 30-1*. Five class periods. Wave motion, heat, kinetic molecular theory, thermodynamics and electrostatics in Winter Term. Electrodynamics (including magnetism), geometrical and physical optics, early atomic and nuclear theory in the Spring Term.

**42—3 Projects in Physics and Astronomy**

(8343) One class period, two double lab periods. Prerequisite: co-requisite: a year of physics and the instructor's permission. This laboratory course is offered for a limited number of able physics or astronomy students who are interested in pursuing projects in quantitative measurement and data analysis. Students will be expected to research their topics in teams, to carry out the work in lab and present a seminar of their work to several members of the science department at the end of the term. Possible topics include lasers, astrophotography, vibration analysis, lunar orbit determination and energy conversion. (Mr. Sarton)

**52—12 Advanced Physics (T2) (a two-term commitment)**

(8374) Prerequisite: Honor grade in *Physics 30* (or equivalent). The student should also have successfully completed a first-year calculus course. This is a rigorous course in mechanics (Fall Term) and electro-statics and dynamics (Winter Term) using both scalar and vector calculus extensively. This course generally prepares candidates successfully for the C-level Advanced Placement Examination in Physics and entrance to *honor level* programs in physics at the best colleges in the world. Text: *Physics* by Resnick and Halliday.

**55—0 Physics Honors**

(8380) Four prepared class periods and one unprepared double laboratory period. An advanced course using considerable scalar and vector calculus. Open only by permission of the Department Chairman to a small group of very talented students who should have completed a first-year calculus course. The course is designed for students who have not previously taken a course in physics, may have taken a chemistry course, and generally plan to take the C-level Advanced Placement Examination

in Physics. This is a very rigorous course and only those who demonstrate great talent and interest should attempt it. In the last few years it has tended to be more theoretically oriented than other department offerings. Text: *Physics* by Resnick and Halliday. (Dr. Perrin)

**60—3 Relativity and Quantum Mechanics**

(8393) Prerequisites: *Physics 30* and *Math 52*. Four prepared class periods. Relativity and Quantum Mechanics are two theories that completely revolutionized man's thinking about the universe. The course is a survey of the basic ideas underlying these theories. Special mathematical techniques needed for a better understanding of the material are developed in the course.

**SPECIAL SCIENCE COURSES**

**Animal Behavior**  
30—1 (8411)  
30—2 (8412)  
30—3 (8413)  
**Animal Behavior**  
Prerequisite: one year of Biology. Limit of sixteen students. Preference given to Seniors. Three prepared class periods and one unprepared double laboratory period. The course is designed to familiarize the student with the basic principles of animal behavior. The topics which receive the greatest emphasis are: territoriality, courtship, parental behavior, migration, dominance, and the evolution of behavior patterns.

**Astronomy**  
30—1 (8421)  
**Observational Astronomy**  
Four prepared class periods. Astronomy is one of the few sciences left that the amateur can enjoy while still making meaningful contributions to the field. This course exposes students to observing the heavens with the unaided eye, binoculars, and telescopes. Classes are scheduled in the Observatory three nights each week. Students identify constellations, track asteroids and planets, and learn how to observe using a telescope. Limit of 10 students. Students are encouraged to bring cameras, binoculars or other optical equipment they own. Permission of the instructor is required prior to enrollment. (Mr. Sarton)

**Astronomy—The Universe Beyond the Solar System**  
35—2 (8432)  
Four prepared class periods. This course is designed for Uppers and Seniors who are interested in a college-level course in modern astronomy. We shall consider some of the most fantastic objects in the known universe, such as quasars, pulsars, and black holes. In addition we shall discuss the theories which describe these objects: theories that analyze the evolution of stars, the formation of the universe, the im-



plications of relativity for space travel, and the search for extraterrestrial intelligence (ETI). The course will be made up of slide presentations, films, discussions and sessions in the Phillips Academy Observatory. (Mr. Sarton)

#### Geology Geology

34—1 Four prepared class periods, with two periods (8451) each week used for laboratory work. A general  
34—3 introduction to physical geology, with special (8453) attention given to socially significant aspects of this science, e.g., mineral resources, groundwater budgets, petroleum exploration, nuclear waste disposal, geothermal energy. Text: *Earth's Dynamic Systems*, Hamblin. Lab Manual: *Physical Geology*, Hamblin. (Dr. Wilson)

#### Science The Physics of Technology

36—1 Prerequisite or co-requisite: *Mathematics 30* or (8561) equivalent. Three prepared periods and one double-period laboratory. This non-traditional physics course is open to students with no previous background in physics who would like to investigate how physics applies to technology. The course will consider such topics as: strobe photography as a scientific tool; vibration and resonance (case study, the Tacoma Narrows Bridge collapse); solar energy and solar collectors; nuclear reactors and their dangers; aerodynamics and the SST; and, possibly, optics and lasers. This course is more intuitive and less mathematical than *Physics 30* and will place emphasis on lab work and discussions. In general, this course is not open to students who have taken physics, though permission from the instructor might be granted in special cases. (Mr. Sarton)

## Theatre and Dance

All courses are electives, open to Seniors, Uppers, and Loweres, but to Juniors only as noted. Courses in theatre are designed for students who wish formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work in productions. A variety of experiences is available: some courses result in performance; some courses study theory; some do both. Theatre students are encouraged, though not required, to supplement their

classwork by participating in any of the numerous productions mounted each year, or they might be invited to join the Andover Touring Company, which for several years has become part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life*, *A Thurber Carnival*, *Godspell*, and *The Contrast*.

### THEATRE COURSES

#### 20—1 Introduction to Theatre

(6501) Four class periods. Open to Juniors and Lower  
20—2 Middlers. Using both classical and modern  
(6502) scripts to provide a range of dramatic experiences, the class studies plays in depth to see

how they might proceed from page to stage. The course examines the components of production, especially acting, set design, and lighting, to learn how the play moves from the script to full realization as a production. Intended for students with limited experience in educational theatre.

#### 21—1 Introduction to Acting

(6511) Four class periods. Not open to Juniors. This  
21—2 course is designed for students with little or no  
(6512) acting experience. By doing exercises in movement and voice production, reading, improvisation, and scenes, a student who is curious about the theatre may determine whether

he or she has ability or interest in acting, while learning something of the process of characterization, the major responsibility of the actor. The emphasis is on the variety of acting experiences rather than on a polished final product. Text: Hagen, *Respect for Acting*.

#### 22—1 Public Speaking

(6521) Four class periods. Separate sections for  
22—2 Juniors/Lowers and Uppers/Seniors. The  
(6522) course has a dual objective: to learn how to speak easily in front of others, and to learn how to speak English well. Students give prepared and extemporaneous speeches on a

variety of topics while studying diction, pronunciation, projection, organization, and other techniques of good speaking.

#### 23—1 Acting Workshop

(6531) Four class periods. Prerequisite: *Theatre 21*, or  
23—2 some acting experience. Building upon the  
(6532) principles of acting introduced in *Theatre 21*, this intermediate acting course consists of detailed scene work and improvisation, exploring the relationship of the actor to his audience  
(6533)

and to his fellow actors and focusing on the creation of dramatic moments, both with and without scripts. The course considers various acting styles, in an effort to guide the actor toward a greater understanding of his responsibility on stage to see to what degree he can remove himself from himself while creating truthful characterizations. Text: Sonia Moore, *The Stanislavski System*

**24—3 Advanced Acting Workshop**

(6543) Four class periods. Prerequisite: Theatre 21, 23 or 25 or significant production experience.

For serious acting students who wish to study plays and characters in depth, this course might be taken in conjunction with the playing of a role in a dramatic production. It might also enable students with directing experience to develop that technique further. (Mr. Bellizia)

**25—1 Directing Workshop**

(6551) Four class periods. Open to Uppers and Seniors. Dedicated to the idea that the director's job is the most complex in theatre, the course is designed for students who have had some acting experience and who now wish to study the principles and techniques of directing. Class members experiment with manageable scenes; they read about the art of directing and study various styles of direction, methods of scene interpretation, and types of drama from classical and contemporary periods. Emphasis is placed upon the director's responsibilities to his actors, his audience, and his playwright. Text: Cole and Chinoy, *Directors on Directing* (Mr. Bellizia)

**26—123 Stagecraft**

(6561) Two double periods. Open to all classes.

(6562) Through practical experience in designing,

(6563) building, and lighting for plays currently being produced, students learn the elements of stage-

craft, including set construction, stage rigging, and the use of lighting instruments and gels. For the Fall Trimester emphasis will be on set design; for the Winter, stagecraft; and for the Spring, lighting. Text: Parker and Smith, *Scene Design and Stage Lighting*

**27—23 Play Production**

(6572) Four double periods. By audition only. This

(6573) course is oriented toward the performance of a significant work by an important playwright.

Recent choices have been *The Crucible*, *The Sea Gull*, *The Little Foxes* and *The Caucasian Chalk Circle*. Winter Term: *Macbeth* (Mr. Bellizia); Spring Term: To be announced (Mr. Owen)

**28—1 Shakespearean Workshop**

(6581) Four class periods. Open to all classes. An in-

28—3 tensive study of several plays by Shakespeare, with the major emphasis on the spoken word.

(6583) Close attention is given to pronunciation, diction, rhythm, dynamics, and interpretation. Students read aloud, act, memorize, and record scenes and soliloquies. Anyone who plans to audition for Theatre 27-2 might consider this course. (Mr. Owen)

**29—2 Playwriting**

(6592) Four class periods. Open to Uppers and Seniors. Each student is expected to write at least one one-act play in addition to certain exercises in monologue, dialogue, and scene setting. The class reads aloud from students' work-in-progress while studying the formal elements in plays by important playwrights and by reading selected literary criticism focused on drama. (Mr. Owen)

**31—23 History of Theatre**

(6612) Four class periods. Open to Uppers and

(6613) Seniors. Beginning with the origin of theatre in ancient myth and ritual, the course traces

theatre through Greek and Roman drama, the medieval mystery and morality plays, the Elizabethan Age (with a special focus on Shakespeare), the Restoration, the Eighteenth Century, and Victorian drama, up to the beginnings of modern drama in the early twentieth century. By discussing dramatic literature from each period, by seeing slides on theatre architecture, set design, acting styles, and production elements, and by participating in staged readings, the student sees the trends and influences which have produced great drama in the past and which have allowed theatre to thrive in spite of severe obstacles throughout its history. The course is intended as background for anyone who participates in, reads, or attends plays. Text: Brockett, *The History of Theatre*. (Mr. Bellizia)

**DANCE**

**30—123 Introduction to Dance**

(6701) Four prepared class periods. Open to all

(6702) classes. A formal course in movement and

(6703) composition which introduces the serious student to the vocabulary and other elements of

dance through active participation. The emphasis is not ultimately on public performance, but on the process and the discipline of modern dance. (Ms. Brecher)



# Andover

## Catalog 1981-82



**Editor's note:**

Although the material in this catalog is intended to be general rather than a complete record of any one year, two important changes occurred at Phillips Academy in January of 1981:

Donald W. McNemar became Andover's 13th Headmaster, succeeding Theodore R. Sizer, who completed his ninth year as Headmaster in June of 1981. Dr. McNemar comes to Andover from Dartmouth College where he has been a member of the faculty since 1969. In 1978 he was appointed Associate Dean of the Faculty with responsibility for the Social Sciences Division as well as teaching in the Department of Government.

His wife, Britta, has been Director of Career and Employment Services at Dartmouth and joins the Andover faculty as Assistant Director of College Counseling.

Melville Chapin '36 succeeded Donald H. McLean, Jr. '28 as President of the Board of Trustees.

This supersedes some information contained herein. The general information contained in this catalog is not in any manner contractually binding and is subject to revision and change.



# Andover

## Catalog





Phillips Academy,  
Andover, Massachusetts,  
better known as Andover,  
is an independent,  
coeducational, integrated  
and non-sectarian  
institution offering a  
variety of academic  
programs for high school  
students.

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PHILLIPS ACADEMY IN 1778.



## Introduction to Andover

July 26 '90	Louise in Blanketbed & H sold for land in Antwerp returned at	\$1800
Sept. 2 '92	To have back books for	40.
	<i>Antwerp Library</i>	400.
	See the subject of <i>Chambers' History</i>	250.
1796	see the subject of <i>Chambers' History</i>	300
'92	see the subject of <i>Chambers' History</i>	300
'92	see the subject of <i>Chambers' History</i>	300.
'92	see the subject of <i>Chambers' History</i>	300.
1800	see the subject of <i>Chambers' History</i>	300.
	see <i>rehabilitating the A. Army</i>	3000
1805	see <i>rehabilitating the A. Army</i>	3000
	see the subject of <i>Chambers' History</i>	300
1900	see the subject of <i>Chambers' History</i>	300

In 1789 the first scholarship monies are recorded, from John Phillips, "in consideration of further promoting the virtuous and pious education of Youth, (poor children of genius and of serious disposition especially) in Phillips Academy, founded in Andover, Massachusetts."

In an old carpenter's shop, "fitted up temporarily for school purposes," thirteen pupils gathered to meet Master Eliphalet Pearson and hear a dedicatory sermon by the Reverend Jonathan French. The date was April 30, 1778, and the Phillips School of Andover was begun. There was little reason to believe the future held bright promise that Thursday morning over two hundred years ago, for both our school and the young nation of which it was a part existed more in the hopes of their founders than in reality. Indeed there was a certain audacity in venturing any new enterprise at a time when the war with England was going badly and there was, as yet, no stable government for the new American nation. But twenty-six-year-old Samuel Phillips, Jr., had set about convincing others that the times required just such a venture as the Phillips School. He wrote, "upon the sound education of children depends the comfort or grief of parents, the welfare or disorder of the community, the glory or ruin of the state. The present public ignorance gives rise to a fear of events the most dreadful. . . ."

Our modern Phillips Academy bears little physical resemblance to its origins, but it is striking how strong the threads of continuity are with the ideals and even the government set forth by the founders. The emphasis on intellectual and moral training and the determination to draw able young people from every quarter of society are ideas as appropriate today as they were in the Revolutionary age in which they were conceived.

Andover, for all of its more than two hundred years, has been and remains a place for young people to learn "*the great end and real business of living*," a goal set forth in the *Constitution* that has served us, unchanged save for emphasis appropriate to the changing times, for over two centuries. We serve today some two thousand young people, most between fifteen and eighteen years of age, at the Academy among the course of a calendar year. Some twelve hundred students are



President George Washington wrote in 1795:

There are too [sic] private Academies in the state of Massachusetts which are highly spoken of. . . . That at Andover I have been at myself, it is in a high, dry & pleasant Country; & is more of a township than a town — Inhabited by respectable & well disposed people.

Schooling, board, washing & lodging will not much, if any, I am told, exceed two dollars a week for each boy."

Excerpt from President Washington's letter to his nephew Colonel William Augustine Washington, who subsequently enrolled his sons.

at Andover during the traditional school term for periods up to four years. Over eight hundred spend the summer with us. While the students in our day are drawn from a narrower age group than earlier — Eliphalet Pearson faced both a six-year-old and a thirty-year-old in his first class in April of 1778 — their hopes and worries, many of the decisions they face, even their pranks, are timeless.

It should be a privilege to attend Andover, but Andover should not be a school of privilege. We are committed to enrolling able students from all economic levels, from every racial, religious and ethnic entity, "from every quarter" of American life, and from foreign lands. Our *Constitution* bids us do this. Andover is no single group's sanctuary. In a day when many Americans, by their actions, are rejecting even the ideology of the melting pot, we assert it.

Andover is a residential school, a twenty-four-hour learning community. This allows us to draw young people from across neighborhood lines, across state and national boundaries. Young people learn from peers as much as from teachers, particularly in a setting where there is no abrupt clash between classroom and street, between school and home. Class, racial, religious and geographic diversity enrich a school and undermine the divisions that rend national and international life. We presume to forward the learning of leaders here, and leaders in our day must know first-hand how trivial are racial, social, national and religious differences, and how significant is the unity in humanity.

Andover is well equipped to provide for students whose interests and abilities are primarily in the academic realm, in the traditional liberal curriculum. While the so-called "liberal arts" in American schools and colleges have often drifted into pedantry and dullness, we yet believe that the core of this tradition is sound. When demandingly taught, this liberal arts core provides the basis for public and moral leadership. Keen rationality, nourished by examined tradition, is the root of individual decency and freedom.

In a school the principal means to achieve these ends are decent, free and talented teachers. Andover's teachers are strong personalities, individuals of energy and well-considered values, instructors whose work is in the classroom, and also on the playing field, in the dormitory, in the dining hall — in short, across the full range of places where both adult and young person meet. American education is moving away from such a model of teacher. In the mistaken belief that "efficiency" will result, teaching is broken into mechanistic bits. Andover makes a stand for the other, older tradition, for whole teachers who are concerned about whole pupils, their struggles and joys, their bodies and souls as well as their brains.

Our American culture, alas, is not one which takes youth seriously. True, we "use" adolescents as a market and sell much to them. We make fetishes of their tastes. We curse them and try to curb them when they disturb adult lives. But generally Americans feel that the teenaged years are something to get over, certainly not something in which to invest, to respect or to trust. The founders of this school knew better, and we reassert that knowledge. We do take youth, and adolescent education, seriously. Youth is important, a crucial time of life. For those whom Andover serves, now and in the future, we want it to be a rich, constructive and joyful experience.









## Andover Life

### A Beginning



In 1782 Paul Revere was commissioned to make the Phillips Academy seal. Revere engraved the educational faith of Andover's founders — "The end depends upon the beginning" — around the symbols of the rising sun and the hive of industrious bees. The founders' religious and patriotic commitment to the common good is symbolized by the second motto, "Non sibi" — "not for one's self."

### A Purpose

Phillips Academy opened for instruction shortly before the Continental Army marched out of Valley Forge and, in one sense, the school and the nation have grown up together. Paul Revere engraved Andover's seal; John Hancock signed its Act of Incorporation, and George Washington sent his nephews here to study. Samuel F. B. Morse and Oliver Wendell Holmes were students of Principal John Adams. Harriet Beecher Stowe lived and worked at Andover; she is buried in the Academy cemetery, and her home is now a dormitory. "America" was written on Andover Hill in 1832. For over two centuries we have sought to develop sound scholarship, character and self-reliance in our students, as well as a commitment to work for the good of the nation and mankind.

If you come to Andover today, you won't have to go far to see a building designed by Charles Bulfinch or one named for Nathan Hale. You will take classes in a modern arts and communications center, an archaeology museum and in buildings dating back to the War of 1812. You might live in a dormitory constructed in 1808 or one built in 1973. Your next door neighbor might be from Texas or Thailand. You might take Greek and kinetics, or Russian and astronomy. You might learn how to play squash, discover what it's like to work for a radio station or how to run rapids in a kayak or canoe.

The opportunities are here.

The Phillips Academy faculty, meeting in the winter of 1979, adopted the following as a statement of goals and intentions:

Phillips Academy is committed to providing a rigorous academic education for qualified "youth from every quarter," as stipulated by our Constitution, and to helping

students develop the skills and values necessary for personal fulfillment and a significant contribution to society. The Academy strives to meet this commitment in several ways: recruiting aggressively and welcoming qualified and promising students from a wide range of ethnic, economic, and geographic backgrounds, in the belief that diversity itself can be an enriching component of education; providing a strong curriculum in intellectual and artistic disciplines to cultivate a vision of man's potential as well as an understanding of his accomplishments, and to establish a basis for further exploration and perhaps eventual specialization; offering a diversified program in competitive athletics and physical education to foster physical agility, endurance, and resilience, as well as an appreciation of physical achievement and the notions of play and sportsmanship; developing a program in health to promote an understanding of and respect for physical and emotional well-being and to encourage sound health habits; encouraging the study and exercise of religious beliefs, as a means of spiritual nourishment; offering experiences in leadership within the community, in order to develop responsibility, resourcefulness, and social concern; and providing innovation and a measure of leadership in secondary education, a responsibility dictated by our combination of independence, resources, and tradition.

## The Place

Phillips Academy was the first boarding school to be incorporated in the United States (1780). For 194 years, until 1972, it was an all-male institution; in October of that year the Trustees of the school announced the merger of Abbot Academy and Phillips Academy to effect a single coeducational school. Abbot Academy, established in 1829, was one of the oldest girls' boarding schools in the nation. Several years of coordinated academic courses and extracurricular activities between the two neighboring schools preceded the merger. During its more than two centuries the school has grown in size from a single rude building and a few acres of land to an extended campus of 160 buildings on over 450 acres.

The school is located on a hilltop in the town of Andover, a 45-minute bus ride from Boston and Cambridge. It is well situated for easy access not only to the historical, cultural and entertainment offerings of the Greater Boston area, but to the beaches and mountains for which northern New England is justly renowned.





## The People

### *Students*

There are almost twelve hundred students in Andover's regular session, about forty percent girls, sixty percent boys. Day students comprise one-fifth of the enrollment. More than eight hundred attend the Academy's Summer Session, and some sixty attend the Short Term Institutes held on campus at various times during the school year (see page 44).

Andover students come from every walk of life, from virtually every state in the union and from more than twenty foreign countries. They are divided into four classes: Seniors, Upper Middlers, Lower Middlers and Juniors — our traditional terms for 12th, 11th, 10th and 9th graders. Although some are here for four years and others for programs taking a much shorter time, they all have two things in common: intelligence and the willingness to use it.

### *Faculty*

The faculty number approximately two hundred; over half hold advanced degrees at the master's level or higher. The power of an Andover education flows directly from their scholarship and classroom teaching.

Andover asks much of the men and women who teach here: although the heart of the work is in the classroom, the tradi-





tion of schoolmastering calls for the teacher to serve simultaneously as House Counselor or student advisor, coach and part-time administrator. Andover teachers are accessible to students in the dormitory, in athletic endeavors, in extracurricular activities; they share an abiding interest in the growth of young people and a willingness to become directly involved in that process.

### A year, a week, a day

Andover operates on a trimester system, offering about 290 separate courses that vary in length from one trimester to the full year. The year begins in late September and ends in mid-June, with breaks at Thanksgiving, Christmas and in the early spring.

Classes are held on Monday, Tuesday, Wednesday morning, Thursday, Friday and every other Saturday morning. Classes are normally fifty minutes long, providing five instructional periods in the morning and, with the exception of Wednesday and Saturday, two in the afternoon. An individual is likely to have one morning period and one afternoon period free each day, depending on the scheduling of courses and laboratories.

Participation in athletics is required of all students, and athletics and activities are scheduled four afternoons a week for two hours each. On Wednesday and Saturday afternoons varsity and junior varsity teams often participate in interscholastic competition.

Meals are served in Commons, the central dining hall, composed of four dining halls and two serving areas. The cost of meals is included in the fees of both boarding and day students.

Wednesdays and Saturdays are half holidays with no afternoon academic appointments. On alternate Saturdays there usually are no morning classes. Sunday is totally free. On these days there is time for independent study, for special projects, for informal sports, shopping in Andover or trips to Boston, the beach or the mountains. Social events during the week are limited by the demands of the academic program, but the weekend program on campus includes dances, concerts, movies, plays and informal activities.



Most students are eligible to take a day excuse each week and, after the first two weeks of the year, they are eligible to take overnight excuses beginning after their last scheduled weekly appointment.

Course work is intensive and involves about twenty-five hours of outside preparation each week. Required athletics or afternoon activities total approximately six hours each week. In addition, all students are required to participate in the school's work program, performing assigned tasks, supervision or leadership responsibilities two hours each week. Despite the amount of time that must be spent on academic pursuits, most students become very involved in these extracurricular activities and social events. The school encourages independence and personal responsibility: there are no study halls, and decisions about the use of one's time are largely left to the judgment of the individual.





## Residential Life



Dancing was forbidden in the 1820's, and when a rash Frenchman proposed to start a dancing academy in the town, the Principal [John Adams] did his best to have him summarily ejected by the village fathers.

Claude M. Fuess, *An Old New England School*

### *Dorms and Clusters*

Boarding students live in dormitories with faculty House Counselors and their families. Although these buildings vary in size and house from four to twenty-four students, all are small enough to encourage close relationships among students and between students and House Counselor. One-third of the students live in single rooms; two-thirds have one or two roommates. Rooming arrangements vary from large one-room doubles to three-room suites; larger dorms are likely to have students from at least three classes.

For many students, dormitory life is one of the most valuable aspects of their time at Andover. Whether it's planning a pancake breakfast or studying for a history mid-term, sharing it with people from very different backgrounds or from foreign lands is a rewarding learning experience.

Dormitories are grouped into six geographical units called "Clusters," each including girls' and boys' dorms, about two hundred students from all classes, and twenty to thirty faculty families. Clusters create the personal atmosphere of a small community in which everyone knows everyone else and people do most or many things together. The Cluster System is the heart of Andover's residential life, bringing the advantages of a small school to an institution that already has the advantages of size.

The Clusters have considerable independence; teachers and students together manage their own affairs under the leadership of a Cluster Dean. Each Cluster has its own student officers, discipline system, intramural athletics and informal social activities.

Clusters are responsible for administering much of the student work program, which is designed to develop a sense of community responsibility for the daily operation of the school. It also assists the school in reducing its expenses. Working no more than two periods a week, students share the jobs of returning books to library stacks, operating audio-visual equipment, serving as office helpers, messengers, laboratory assistants, and performing other essential tasks. Other students are responsible for the daily care of dormitories, while all residents of a given dormitory are responsible for keeping its entries free of litter and snow.

The Clusters take turns each week working in the dining hall, Seniors serving as overseers. Seniors have many other supervisory roles, including proctorships, work duty and administrative tasks.

### *Counseling and Discipline*

Those who are not accustomed to a residential school may at first be surprised by the degree of independence an Andover







Always speak to an Andover man on the street, whether you know him or not. All cheering is under the direction of the cheerleaders. Individual cheering is not allowed. New men are expected to have the songs and cheers perfectly learned by the end of the first two weeks. It is not good form to cut or mark school furniture. Try to keep enlarging the number of your acquaintances, but be slow to make intimate friends.

*Selections from 1920's rule book: Customs and Points for New Men*

student has. On the other hand, they may be surprised by the existence of rules and procedures necessary to protect the rights of individuals and to enable the school to achieve its ends. Existing rules have a dual purpose: to preserve the necessary order in the community so that effective learning can take place, and to teach students that individual freedom can be achieved only through due consideration for others. The school tries to keep rules to a minimum. Incoming students and their parents are provided with a copy of the *Academy Blue Book*, summarizing rules and regulations; all students are held responsible for its contents.

Each student has a faculty House Counselor who lives with his or her family in the dormitory and who is available for advice and assistance. This faculty member works closely with students in the dormitory on both the personal and academic level, and parents can expect to hear from the House



Counselor at regular intervals. Parents are encouraged to turn to the House Counselor for information regarding a student's progress.

Each Cluster Dean supplements the work of the House Counselor and is available to students and parents for information and advice. Other support staff include academic advisors, who help students in the Cluster plan their academic programs, and the College Counseling Office, which assists all Seniors with their future educational plans. The Psychology Department, located in Graham House, offers individual counseling for any student and leadership training for students who wish to develop those skills.

Discipline is handled at the Cluster level and involves the Cluster Dean, House Counselor, other faculty and student representatives. Offenses involving a student's integrity, social offenses that threaten the well-being of other individuals or the school community, and continued infractions that indicate an unwillingness to come to terms with the demands of the school — all render a student liable to dismissal. Cluster recommendations for suspension or dismissal are made to the Headmaster, who makes the final decision. Examples are dishonesty, the possession or use of alcoholic beverages or illegal drugs and unauthorized absence from school bounds. Students may not possess, rent or drive any motor vehicle within school bounds; bicycles are permitted. Andover does not allow smoking, unless students have completed a school-administered course on the health hazards involved and have parental permission.

In a community such as Andover, all must commit themselves to the goals of the community and to loyalty to each other. Since education at Phillips Academy is both intellectual and humane, students and faculty derive mutual support from sharing of themselves and their ideals.

Trust and responsibility have many interpretations; these words have become hackneyed from overuse and misunderstanding. But the ideas they embody — sensitivity to others, willingness to explore and respect differing points of view, charity and humility in expressing judgment, readiness to cherish friendship, to depend and to be depended upon — are nonetheless fundamental. Such values can scarcely be legislated and can only be imperfectly defined. Yet the health and happiness of everyone in the community depend on consideration and awareness, restraint and candor, discretion and shared joy. Collaboration toward these imprecise but worthwhile ends is an expectation which all at the Academy hold.

Only boys and girls who feel that they can live happily with the rules and guidelines of Phillips Academy should apply for admission.



In the early 1930's Abbot alumnae parents tried to persuade Principal Bertha Bailey to abandon the required long black stockings worn with the girls' gym bloomers. To this request she steadfastly refused: "I don't like legs."





Harriet Beecher Stowe, author of *Uncle Tom's Cabin*, and her husband, a Seminary professor, lived in Stowe House. She is buried in the school cemetery. Mrs. Stowe shocked the strict Congregationalist community by giving parties and entertainments for students, was suspected of going to the theater and even of having "Episcopalian leanings."

Charles M. Fuess, *An Old New England School*

### *The Campus Ministry*

Phillips Academy is committed to a "team" ministry, representing the Protestant, Roman Catholic and Jewish faiths, that seeks to be responsive to the spiritual needs of the school. The school chaplains teach in various fields and have the additional responsibilities of worship services and of pastoral counseling. Andover students come from various religious traditions; some have no religious affiliation. The school wishes actively to support religious communities within the institution and hopes that a less formal but more focused approach to the spiritual life of the school will encourage other teachers and students to active participation and leadership.

Worship services are available for all who wish to participate. A Protestant interdenominational service and a Roman Catholic Mass are held on Sundays; the Jewish congregation has services regularly on Friday evenings.

### *Activities*

Extracurricular activities are an important aspect of a student's education, and Andover offers a rich fare, thanks to the diversity of interests in the student body. From the Pre-Med Club member to the Model Railroader, it seems that all Andover students do something special in their free time.

Many of the activities are service-oriented; the Community Service Program places student volunteers in area hospitals, elementary schools, youth centers and other agencies. Closer to home, the Tour Guide Association handles the responsibility of conducting campus tours for the Admissions Office. Older students who are members of the Tutorial Program offer help to fellow students in academic difficulty. The student radio station, WPAA (91.7 on your FM dial), is on the air from 6:30 a.m. to 11:30 p.m. daily, serving the local listening area as well as the student body. *The Phillipian*, the Academy's student-run weekly newspaper, is wholly uncensored; students lay out the paper and do some of the typesetting, as well as write the articles and headlines. The *Pot Pourri*, the school yearbook, and the school literary magazine, *The Mirror* (Robert Frost was an early contributor), provide more opportunities for those with a literary bent.

Cultural organizations include the Afro-Latino-American Society, the Asian Cultural Society and others; course-related groups range from the Astronomy Club to the Russian Club. The Chapel Council, the Newman Club and the Jewish Student Union support the "team" ministry in providing active religious communities for Andover students.

At any time during the week, actors and directors will be working on a main stage play or on a student production in



the Drama Lab; the Andover Student Political Union may be listening to a State Department official discuss the Middle East; the Natural History Club may be birdwatching on an ocean beach or — if the season is right — the Ski Club may be on its way to the White Mountains of New Hampshire.

Many students make extensive use of school facilities in their free time, whether or not they are affiliated with a club or organization. The Arts Center is a major focus of school life — darkrooms are used almost around the clock, and students and faculty interested in painting, metal sculpture, ceramics or design make use of the center's studios and workshops in their free time. The Music Department also provides facilities for students interested in pursuing music beyond the classroom.

There is no limit to the variety of extracurricular activities at Andover. Students who do not find an existing club or organization that meets their needs are encouraged to start one.

## Undergraduate Organizations (Clubs)

Afro-Latino-American Society	EAT (Environmental Action Team)	Pre-Law Society
Andover Student Political Union	<i>Eidolons</i> (student photography publication)	Pre-Medical Society
Asian Cultural Society	Fidelio (madrigal singing society)	Press Club
Astronomy Club	French Club	Psychology Club
Athletic Advisory Board	German Club	Radio Broadcast Association (WPAA-FM)
Backgammon Club	Health Food Club	Russian Club
Band	Jazz Band	Sailing Club
Blue Key	Jewish Student Union	Ski Club
Brass Choir	Math Computer Club	Social Functions Committee
Bureau of Tutoring	<i>The Mirror</i> (literary magazine)	Spanish Club
Cantata Singers	Model Airplane Club	Stage Crew
<i>Caucus</i> (Af-Lat-Am publication)	Model Railroad Club	Stamp Club
Chamber Music Society	Muse	Student Guides
Chapel Council	Natural History Club	SUMOP (Summer Job Opportunities)
Cheerleaders	Newman Club	Table Tennis Association
Chess Club	Orchestra	United Nations Club
Chorus	Outing Club	Western Union
Coin Club	<i>The Phillipian</i> (weekly student newspaper)	Women Students' Union
Day Student Union	Philomathean Society (debating society)	Young Democrats
Drama Workshop	<i>Pot Pourri</i> (yearbook)	
Dungeon and Dragon Society		
Duplicate Bridge Club		
Eagle Scout Post 107		





## Educational Resources

### The Oliver Wendell Holmes Library

At the center of Andover's intellectual life is the 102,000-volume Oliver Wendell Holmes Library, named after the famous doctor and poet who was a member of the Class of 1825. The stacks are open to students. In addition to academic work, students and teachers use the library to explore new fields of interest and to read casually.

The library subscribes to over 260 American and foreign periodicals and eighteen daily papers from cities throughout the country. A microfilm file of *The New York Times* is available. Particular library treasures are the Jansson Atlas, printed in Amsterdam in 1657, papers and books of Oliver Wendell Holmes, and one of the world's leading collections of Vergiliana. The Science and Mathematics Departments have working libraries in their own buildings.

## The Addison Gallery



Seated Woman  
by Elie Nadelman 1917

The Addison Gallery of American Art operates both as a museum in the traditional sense and as an art center for the whole community. In addition to organizing exhibits of American art from its own collection, the museum originates exhibits of contemporary painting, sculpture, photography and crafts. A student-produced seminar series brings artists in to close-range contact with students concerned with issues of use and survival in the arena of contemporary art. In cooperation with Phillips Academy's Music Department, concerts by faculty and students are produced in the museum.

The holdings of the museum are recognized as a distinguished specialized collection: Allston, Copley, Morse, Stuart, West and others represent the Colonial period. Of special importance among the many paintings of the nineteenth century are examples by Cole, Doughty, Eakins, Homer, Inness, LeFarge, Ryder, Twachtman and Whistler. The early part of the present century is shown in the work of Bellows, Davies, Demuth, Hassam, Hopper, Luks, Marin, Prendergast and Sloan. Contemporary artists are represented by works of Calder, Lippold, Moholy-Nagy, Hofmann, O'Keeffe, Pollack, Shahn, Wyeth and others.

## The Robert S. Peabody Archaeology Museum

The Robert S. Peabody Foundation for Archaeology has conducted major archaeological research in this hemisphere for the last seventy-five years and has published many reports of its scientific investigations. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas. The laboratories of the museum are used in teaching and illustrating the Foundation's research. Mature students may undertake special study projects which involve the use of the Foundation's collections and library resources.

Current research is concerned with the origins of agriculture and with the concomitant rise of civilization in the New World. The Foundation maintains continuing research programs in Mexico and Peru and supports major publications based on the analysis of this research. The Peabody Foundation is under the direction of Dr. Richard S. MacNeish, a member of the National Academy of Sciences of the United States; the curator is Dr. Jane Wheeler.



## **The Cochran Sanctuary**

The Moncrieff Cochran Sanctuary is a sixty-five-acre tract of rare beauty located so close to the center of school activity that it is in fact an extension of the campus. Landscaped areas planted with dogwood, azalea, rhododendron and laurel provide a succession of bloom that draws many visitors from late April to mid-June. A brook and two ponds attract nesting ducks and geese, and extensive natural wild areas, varied in terrain and plant life, provide nesting places for many species of land birds. Cross-country runners and skiers make extensive use of the Sanctuary, as does the Academy's Search and Rescue program.





## The Academic Departments

### The Curriculum

The curriculum of Phillips Academy contains both a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Instruction is given in all subjects required for entrance to higher institutions, whether liberal arts or technical. All departments offer courses beyond the level of preparation for college.

Classroom groups are small enough to permit individual attention; the average class size is fourteen. Students are placed in sections fitted to their attainment and, through accelerated sequences and advanced courses, are encouraged to progress at a rate commensurate with their ability and ambition. Many students fulfill requirements ahead of the normal year, increasing their choice of college-level courses and other elective opportunities. Andover's trimester system provides flexibility and variety in the curriculum and allows various combinations of independent work and off-campus projects.

Every student is assigned to an academic advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements and the student's particular interests. With the approval of the academic advisors and House Counselors, students may select their instructors, class times and sections during the Arena Day preceding each trimester. However, the school cannot guarantee that all students will be able to have their desired selections.

The curriculum and diploma requirements are described in detail in the *Course of Study*, which will be sent upon request to each preliminary applicant and to others who would like to receive it.



## THE ARTS



When Humphrey Bogart flunked out of Andover in 1918, it was not from lack of ability, his teachers agreed. Headmaster Alfred Stearns wrote to Humphrey's father, a classmate of Stearns. "The boy is all right at heart and is bound to come out on top.

### Visual Arts

At the heart of the art program is a concern that all students learn to see freshly and accurately that they learn how to organize their efforts to make something happen, that they develop a critical eye for the coherence of their environment, all these with an independent mind.

The diploma requirement in art is as follows: Juniors and new Lower Middlers must take a trimester course in studio art; an entering Upper Middler must take a trimester course in studio art or music. Andover attempts to balance structured, problem-solving courses like the basic Visual Studies, with more adventurous advanced courses, organized around longer-term projects. For a student who desires several terms in art or design, the courses are here, whether the student's objective is a professional school, Advanced Placement in a liberal arts college, or simply a strong basis in a traditional area of general education.

The superb facilities of the Arts and Communications Center — fully equipped wood and metal shops, two complete photo labs, print-making equipment, painting and drawing studios, a kinetics studio — are supplemented by the several kilns available to ceramicists. The department welcomes extracurricular use as well as work related to courses, and faculty members are on hand every evening to encourage the idea that whether it's painting or bicycle repair, the Arts Center is the place to go.

### Theatre and Dance

Courses in theatre are designed for students who seek formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work on plays. A variety of experiences is available; some courses are performance oriented; some are theory oriented; some are both. All combine classroom and workshop sessions; students work out practical theatrical problems together under the guidance of an instructor. Dance may be taken as a course or as an activity.

George Washington Hall, capable of handling audiences of one thousand, includes a flexible, professionally equipped proscenium stage. It has a full fly system, accommodation for numerous lighting





instruments and an elevator/pit. Recent main stage productions have included *The Me Nobody Knows*, *A Thurber Carnival*, *Cabaret*, *The Time of Your Life*, *The Comedy of Errors*, and *Twelfth Night*.

The Drama Lab, also in George Washington Hall, is a "black box" — an intricate arena/workshop with excellent lighting facilities, suitable for audiences of not more than ninety. Although main stage plays are usually directed by a member of the faculty, the Drama Lab allows students to direct plays themselves and to experiment with dramatic styles. A sample of productions from recent years includes *Trial by Jury*, *The Point*, *The Prime of Miss Jean Brodie*, and plays by Albee, Ionesco, and Pinter. Original student work is also performed here.

Theatre students are encouraged — but not required — to supplement their classwork by participating in any of the numerous productions mounted each year; anyone may audition for the Andover Touring Company, for several years part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life* and *Godspell* during spring vacation.

## Music

The Music Department faculty consists of five full-time and several part-time instructors. Other highly qualified instrumentalists are available to teach voice, piano, organ, classical guitar, brass, percussion, strings, and woodwinds.

Andover offers courses for the beginner as well as for intermediate and advanced students both at the applied level (study of musical instruments or playing in a musical organization) and in the history, appreciation, and theory of music. An entering student who has not had the opportunity to learn to play may join a class to study an orchestral instrument. He or she may also, for a nominal fee, study privately.

The Nature of Music, or Music 20, is the diploma requirement in music, and a prerequisite for most courses in the history, appreciation, and theory sections. A more advanced three-part course, Theory of Music, runs in sequence throughout the year.

Graves Hall, the department's home, has large rehearsal halls for the Concert Band and the String

Orchestra, many individual practice and ensemble rooms, one music classroom, teaching studios and an electronic music studio. The department also has a large, up-to-date record library and listening room. The Chorus has a fully equipped rehearsal room and a library of music literature in the Cochran Chapel, a short distance away. The Chapel also houses two organs for the use of beginning and advanced organ students. One is located in Kemper Chapel, the other, in the main chapel, is a 30-stop, double manual, tracker action instrument.



## VISUAL ARTS

### *Introductory Studio Courses*

Visual Studies  
Visual Studies for Juniors  
Introductory Ceramics  
Introductory Photography  
Art Studio

### *Intermediate Studio Courses*

Visual Studies (Art 10) is a prerequisite for all intermediate courses

Drawing  
Animation  
Two-Dimensional Design  
Three-Dimensional Design  
Intermediate Ceramics  
Intermediate Photography

### *Advanced Studio Courses*

Visual Studies (Art 10) is a prerequisite for all advanced courses

Graphics and Photography  
Studio Photography  
Painting  
Filmmaking  
Advanced Ceramics  
Print Shop  
Advanced Photography  
Sculpture  
Kinetics  
Architecture

Contemporary Communications  
Puppetry  
Calligraphy, The Art of Lettering by Hand  
Advanced Placement in Studio Art  
History of Art: Painting and Sculpture  
History of Art: Architecture

## MUSIC

*Applied*  
Beginning Instruments  
Recorder Ensemble  
Brass Ensemble  
Woodwind Ensemble  
String Ensemble  
Fidelio Society  
Band  
Chorus  
Chamber Orchestra  
Private Instrumental and Vocal Lessons  
The Nature of Music  
Developing Musical Skills  
*History and Appreciation*  
Medieval and Renaissance Music (to 1600)  
Baroque Music (1600-1750)  
Classical Music (1750-1820)  
Romantic Music (1820-1900)

Twentieth Century Music (1900-Present)  
Independent Study in the History and Literature of Music  
Jazz  
Popular Music in America  
*Theory*  
Orchestration and Conducting  
Theory of Music I  
Theory of Music II  
Theory of Music III  
Electronic Music  
Advanced Techniques in Electronic Music

## THEATRE AND DANCE

*Theatre*  
Introduction to Theatre  
Introduction to Acting  
Public Speaking  
Acting Workshop (Intermediate)  
Advanced Acting  
Directing Workshop  
History of Theatre  
Stagecraft  
Play Production  
Shakespearean Workshop  
Playwriting  
*Dance*  
Introduction to Dance

## CLASSICS

Latin and Greek — still? Yes, as futuristic nightmares and present turmoils are reawakening a search for order, perspective and ideals in the human experience, names like Plato, Vergil, the Parthenon and the *pax Romana* not only symbolize great milestones in that search but also suggest the habits of mind that produce enduring greatness — the same habits of mind that show up so clearly in a sentence, paragraph or entire work of Latin or Greek literature.

The chief aim of the Classics Department is to help students rediscover this sense of order and ideals, in the hope that they may apply it, in turn, to the challenges they face today. Many recognize this by choosing Latin or Greek as the foreign language in which to fulfill the diploma requirement. Others elect one or both as second or even third languages. Still others opt for elective survey courses in various aspects of Classical civilization, as listed below, or, by special arrangement, for independent projects in reading or research.

### CLASSICS

#### Greek

First Year: basics of language and culture

Accelerated First Year: two years in one

Introduction to Greek Language and Culture (one term)

Second Year: Xenophon, Plato, New Testament

Third Year: Homer, Euripides

Fourth Year: Sophocles, lyric poets, Thucydides

#### Latin

First Year: basics of language and culture

Accelerated First Year: two years in one

Introduction to Latin Language and Culture (one term)

Second Year: Caesar, Livy, Plautus

Third Year: Cicero, Sallust, Vergil

Fourth Year: Vergil's *Aeneid*

Fifth Year: Horace, Catullus, Livy, Tacitus

Greek Civilization

Roman Civilization

Epic Poetry

Etymology

Ancient History

Classical Mythology

Survey of Greek Literature

Survey of Roman Literature

## ENGLISH

Convinced that level of achievement is more important than the number of years a subject is studied, the English Department has established modest but firm diploma requirements. A student must prove himself competent in writing and reading through the English Competence course and, by taking the Literature Sequence, acquire a sense of the depth and breadth of his literary heritage.

Once the student has successfully completed that Literature Sequence, which normally takes a year and offers several options, opportunities multiply. Students may enroll in any of the Literature Sequence courses that they have not yet taken; they may study any of the more than twenty advanced or specialized courses offered by the department; Seniors may qualify for an independent project supervised by the teacher of their choice.

The department also serves the needs of less ad-





vanced students. Tutorials are offered for training in the fundamentals of language.

The walls that used to separate academic departments are crumbling. A number of the courses in Theatre are taught by members of the English Department. Most of the interdisciplinary courses are related to English studies. A course in English etymology is taught by the Classics Department. Several of the foreign language departments offer courses about their literature in English translation, but the fundamental requirement does not change. Every student who graduates from Andover has either passed the Competence course in the basic skills of writing and reading or English 300.

## ENGLISH

### *Introductory Courses*

Language Skills

English 300 (for Seniors and Postgraduates)

### *Required Sequence Courses*

English Competence (three terms)

Lit B, 1660-1900 (two terms)

Lit C, Shakespeare (one term)

### *Elective Courses*

(Only courses with sufficient enrollment will be given.)

Efficient Reading

Irish Studies

Great Writers Before 1850

Introduction to Writing

Hemingway: The Man and His Work

Black Literature

James Joyce

Man and God

Forms of Literary Imagination

Modern Playwrights

Shakespeare: The Man, The

Times, The Theatre, The Plays

Satire and Comedy

Novel and Drama Seminar

Creative Writing

American Writers of the

Twentieth Century

Milton and Spenser

Chaucer and His Age

Wit and Poetry in the

Seventeenth Century

Writing Short Fiction



Graceful Bulfinch Hall (1819) has been in Academy use for more than 150 years as a recitation hall, gymnasium, and dining hall and now houses Andover's English classes. Dr. Oliver Wendell Holmes, Class of 1825, immortalized "the classic hall" in his poem, "The Schoolboy," written over 100 years ago for the Academy's Centennial Celebration.



## HISTORY AND THE SOCIAL SCIENCES

The courses in History and the Social Sciences cover a broad spectrum of human experience: from the Vietnam War to ancient Athens, from modern art to primitive cultures, from the American family to Chinese society. They range in teaching techniques from drill in close reading, note-taking and testing to individual projects, written or oral, conceived by students. All are based on the conviction that a citizenry that is informed about man's experience, both past and present, is essential to a democracy such as ours. It is the hope that once interest in the story of man has been kindled, it will be pursued for the rest of an individual's life.

No course in the department uses a formal textbook. Students work with paperbacks, books on reserve in the library, mimeographed handouts, movies, and slides. In all courses emphasis is placed not only on the subject matter studied but also on the acquisition of basic historical skills that should serve the student well throughout the remainder of his educational career.

The courses for the two lower classes are focused on two courses in biography — American and European. These courses emphasize study skills

basic to the study of history. The department believes that the study of great men and women is particularly appropriate for younger students. In addition, these courses are designed to prepare the students for the course in United States History to be taken in the Upper Middle or Senior year and for other upper-level history courses. Other courses for the lower classes include one in anthropology, and one in Colonial America.

The diploma requirement for history is successful completion of United States History plus one trimester elective taken in the Upper Middle or Senior year. Again the approach is topical; the traditional aim of training students to handle historical material with discretion and to write essays containing substantive factual support for general statements remains; the pedagogical techniques for accomplishing this are constantly under review. In United States History and in many of the trimester electives, students are required to choose their own topics for an extensive paper; they are encouraged to use the raw materials of history — newspapers, letters, diaries, interviews. Qualified students in American History may spend the spring term in Washington, working as interns in Congressional offices.

## HISTORY AND THE SOCIAL SCIENCES

### *Social Science*

The Emergence of Man

Ethnicity and Racism in

American Society

Environments and the Individual

### *History*

Early American Society

American Biography

European Biography

The United States

Ancient History

Social History of Greece and

Rome

Social History of the Middle

Ages and the Renaissance

Modern Japan

Modern China

Modern Europe: A Survey

The Soviet Union

Modern Russia: History and

Literature

Elizabethan England

Victorian England

International Relations: The

Present Patterns

The Middle East

Latin American Studies

The Rise and Fall of the

American Presidency

Schools in America

Families in America

The American South

The City in America

Quantitative Historical Data

Analysis



## MATHEMATICS

Mathematics at Andover is addressed to several overlapping audiences within the student body: the future citizen of late twentieth century society, immersed in a culture which has been shaped to a large extent by mathematical perceptions of reality; the future user of mathematics, whose vocation may depend upon special knowledge of a mathematical sort; and the future mathematical scholar, who may turn his energies and curiosity to the organization of mathematical knowledge.

The mathematics curriculum is built around a core sequence of eight trimester courses, three of elementary algebra, two of geometry, and three of precalculus topics, completion of which will satisfy the diploma requirements. An additional trimester is usually required before entering calculus. A student entering with little or no prior study of algebra normally starts with Elementary Algebra; those with a partial year of algebra may enter Algebra Review and continue to Geometry. Students entering with a full year of algebra enter Geometry. Those with one year algebra and one year of geometry will satisfy diploma requirements by taking the first three precalculus trimesters. There are several special courses for new students

which fall between the above criteria.

The department also offers many elective, term-contained and year-long courses, descriptions of which may be found in the *Course of Study*. Over one-third of all mathematics is taken electively, much of it in preparation for the Advanced Placement Examination. These courses include the study of limits and sequences, number theory, elementary and advanced calculus, analytic geometry, differential equations, probability statistics, computer analysis, linear algebra and vector analysis.

The Mathematics Department is located in Morse Hall, which also houses the campus computer center offering time sharing in the BASIC-PLUS language through ten public terminals. Instruction and practice in the use of the computer are given in the required course sequence. The main computer is a PDP-11/70 manufactured by the Digital Equipment Corporation. The department also has several mini-computers for student and classroom use.

The community of students who like math at Andover is sizeable, and they share their curiosity and knowledge by offering to tutor other students at the school.



## MATHEMATICS

*Courses Leading to Satisfaction  
of the Diploma Requirement*

Elementary Algebra

Algebra Review

Geometry

Precalculus

Elementary Functions

*Elective Courses*

(Only courses with sufficient  
enrollment will be given.)

Calculus

Computer Programming

Infinite Series and Differential

Equations

Linear Algebra and Vector

Calculus

Mechanical Drawing

Navigation

Number Theory

Numerical Methods

Probability

Statistics

## MODERN FOREIGN LANGUAGES

As long ago as 200 B.C. the Latin poet Ennius used to say that because he knew three languages he had three hearts. Andover can render no finer service to today's world than to send forth its alumni with many hearts, ready and able to feel for, to understand, and to respond to the millions of people who speak languages other than English.

Acknowledging the importance of foreign languages, Andover requires for the diploma three years of an ancient or modern language. (For Greek and Latin, see Classics.) The modern foreign languages offered are French, German, Italian, Russian and Spanish. Emphasis is on the spoken word, and the foreign language is the basis for all communication in the classroom. Small classes make possible maximum participation, with supplementary practice provided by our versatile language laboratory. There are opportunities to join accelerated classes which complete, for example, the work of four years in three.

At the 4th-, 5th- and 6th-year levels the study of literature may be supplemented by courses in the art, history, geography and music of the foreign country. In upper-level courses students can prepare for the Advanced Placement Examination



and quality for advanced courses when they enroll in a college. Superior students may carry out independent projects, including apprentice teaching under careful guidance.

At all levels of study progress in the foreign language is facilitated, and the resources of the classroom are expanded, through occasional use of communication media (periodicals, radio, etc.) and such activities as the staging of plays, the use of the school's radio station for broadcasts in foreign languages, festivals, language tables in the dining room, movies, clubs, visits by performing groups, and trips to language events in Boston and at nearby schools and universities. Students are urged to consider opportunities, sponsored by Andover or by other schools, to live and study abroad.

For Andover's School Year Abroad program, see page 45.

### **French**

Before the outbreak of the French Revolution, French was considered the universal language of the West. It was the language of diplomacy, was already flourishing as a literary medium and, because of its clarity and precision, reflected both French culture and philosophy, influencing the development of democratic institutions in the United States as well as in other countries. The study of French rewards the student with the ability to communicate with French-speaking peoples and to appreciate the importance of order in expression, broadening his views through a growing familiarity with the rich and lively literature and civilization that the language represents.

### **German**

German is central Europe's principal language, and knowledge of it opens up an understanding of European culture and affairs. Students may learn German to read the works of Goethe, Schiller, Lessing, Kafka, Hesse, Brecht and Grass in their original form, or to follow the arguments of Hegel and Nietzsche, or perhaps to understand more intimately the background of modern socialism and democracy in the world. Many of the most important developments in modern physics, electronics, chemistry and engineering were originally pub-

lished in German, and American businesses are realizing increasingly the importance of personnel able to speak German.

### **Italian**

The growing popularity of Italian in American schools and colleges reflects a growing awareness of the charm of the Italian language and of the cultural heritage which it serves. Andover's accelerated course for Seniors attracts students with rich experiences in other languages, is conducted in Italian, and has the scope and pace of a course for college freshmen.





## Russian

Approximately forty percent of Russian secondary school students are learning English. A fraction of one percent of American secondary school students study Russian. For cooperation, understanding, and influence, our doctors, diplomats, scientists, and businessmen should be able to communicate with Soviet counterparts in Russian.

Since secondary school is the best place to begin, Andover has established a rich program for our younger as well as our older students, with special attention to professional vocabulary.

## Spanish

The Spanish Department is anxious to help students discover the varied cultural heritage of the Spanish-speaking world through intensive study of

the language, both spoken and written.

It seems particularly important to learn a language spoken everyday by millions of Americans across the U.S. In addition, Hispanic literature, from Cervantes to Borges, has played a vital role in world literature, as attested by the frequency with which Hispanic writers have been awarded the Nobel Prize for Literature.

Students who enter the professions will find Spanish an indispensable tool. But whatever they do, Spanish will be the key to a richer, more rewarding life.

## MODERN FOREIGN LANGUAGES

Each language offers introductory and intermediate courses, with opportunities for acceleration at those levels. Students are then eligible for the following courses:

### *French*

Language Review and Contemporary French Life  
Selected Readings  
Village Français  
French Civilization  
Conversation and Phonetics  
Written Expression  
Literature and Film: French Theatre

French Literature  
French History  
French Civilization Outside of Europe

Québec et les Québécois  
Stylistics  
Advanced Placement  
Contemporary Literature

### *German*

Literature, Composition and Conversation  
Literature for Advanced Placement  
Special Topics

### *Italian*

Introductory Course for Seniors, Accelerated

### *Russian*

Literature, Composition and Conversation  
Advanced Literature, Composition and Conversation  
Russian Press  
Literature  
Special Topics  
Russian History and Literature

### *Spanish*

Second and Third Year, Advanced, with winter term in Mexico

Spanish Language Review  
Aspectos de la Cultura y Civilización del Mundo Hispánico  
Introduction to Literature, with Grammar Review  
Literature and Culture, with Grammar Review  
Literature for Advanced Placement  
Advanced Studies in Literature  
Special Topics: Literature, Sociology, Culture  
Latin American Studies

## PHILOSOPHY AND RELIGIOUS STUDIES

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundations of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered in three groupings corresponding to the three quests and at a variety of levels. All courses are elective and involve four prepared class periods.

### PHILOSOPHY AND RELIGIOUS STUDIES

- I. The Search for Meaning*
  - The Religions of Man
  - Biblical Narrative: The Personal Dimension
  - Understanding Religion: An Introduction
  - The New Testament
  - Views of Human Nature
  - Existentialism
- II. The Search for Justice*
  - Values Clarification
  - Ethical Issues in the Sciences
  - Law and Morality
  - Nonviolence in Theory and Practice
  - Ethics and Education
  - In Search of Justice: From Socrates to Marx
- III. The Search for the Foundations of Knowledge*
  - Proof and Persuasion
  - Great Philosophers

## SCIENCE

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers Andover students an introductory term contained course in archaeology in the spring term. The course deals with the prehistoric development of civilization in the four earliest centers: Mexico, Peru, China and the Near East, as well as with archaeological theory and method. The Foundation maintains a museum which cares for many famous collections based on some of the most important archaeological expeditions undertaken in the Americas.

### Biology

Andover provides ample opportunity to develop interest in the biological sciences. In addition to the basic biology courses, the department offers advanced courses in Anatomy and Physiology, Animal Behavior and Advanced Placement Biology. The basic courses give students a general background and an understanding of some of the current trends in biology. Field trips, laboratory work, independent projects, lectures, slides and films are all part of the courses.

Animal Behavior studies some of the wildlife in eastern Massachusetts. The course plans field trips to the coast, salt marshes, lakes and wooded areas within a few hours of Andover.

An advanced biology course prepares older students for the Advanced Placement Examination. The material offered by the basic biology course is reviewed and new concepts, techniques and examples are also presented. The labs give students experience in the techniques of centrifugation, chromatography, electrophoresis, spectrophotometry and statistical analysis.

Informal field trips are held throughout the year for interested students who may or may not be currently enrolled in a biology course. The small zoo in Evans Hall is maintained by students. Its population varies with student interests and the reproductive rate of the animals. In the basement of Evans Hall there is an extensive bird collection on loan from Harvard University and a shell collection.



The Evans Hall greenhouse is a refreshing place to visit during the long winter months. Students grow plants there or start potted plants for their own rooms. An environmental growth chamber is available for those interested in photoperiodism. Independent study is encouraged in all the courses.

### Chemistry

The Chemistry Department offers full-year introductory courses at various levels which prepare students for more advanced work in chemistry.

Many students have undertaken laboratory projects. For example, one student recently investigated the "Miller experiment," the synthesis of amino acids by electric discharge through methane, water vapor and ammonia. Another examined the colors of optically active coordination compounds of cobalt. One student spent a term synthesizing organic compounds and examining their infrared spectra. Others have studied organic qualitative analysis as an introduction to the chemistry of organic functional groups.

Students usually suggest their own experiments,

but they can also adopt and change existing projects in a creative way. A student might design computer programs for chemistry problems, study the use of microchemistry to diminish school laboratory pollution, or explore molecular structures with infrared spectroscopy.

The department has the equipment for the usual experiments in elementary synthesis and analysis, including five Mettler single-pan analytical balances. There are instruments which enlarge the scope of feasible projects — a pH meter, several vacuum tube voltmeters, a Kontes Universal Electrode Kit, a Kern polarimeter, a Bausch and Lomb Spectronic 20 colorimeter and a Perkin-Elmer 700 infrared spectrophotometer. Convenient access to the computer (PDP-11/70, resource time-sharing system) in the Mathematics Department is provided by a teletype terminal located in the chemistry wing of Evans Hall.

### Physics and Astrophysics

The Physics Department offers five introductory courses at various levels of difficulty in order to meet the needs of Andover students. Some representative topics are mechanics, waves, electromagnetism, light, and "modern physics." Laboratory work, classroom demonstrations and extensive problem solving enable students to develop both a qualitative and quantitative understanding of the involved concepts. Also offered are courses including earth science, astronomy, technology, relativity and early quantum theory, and university-level Advanced Placement physics.

The Physics Department operates the Thornton Observatory which houses a research-grade 16-inch reflector, a 6-inch Brashear refractor and six other portable telescopes. These instruments are used in astronomy courses as well as in project work; recent projects have included such areas as solar, lunar and planetary study; astrophotography; computer simulations; and orbit analysis.

Past student projects have included laser transmission of information, holograms, the construction of an electronic calculator, speed of light measurements, determinations of the electronic charge and mass, interferometer measurements, and finding the gravitational constant. Formal and in-

formal contact with the faculty encourages students to examine the interaction of physics and the environment including man, thus hopefully promoting better understanding of the processes of scientific investigation

## Psychology

Individual instructors in the department welcome the opportunity to discuss special interests with any student and have sponsored individual projects such as a study of student values, the evaluation of a social service experience and a program of reading and discussion in a specialized branch of the field



Dr. Charles Abbot, Class of 1891, a solar energy pioneer and head of the Smithsonian Institution for many years, predicted in the early 1940's that solar energy would become the primary source of power when oil and coal were depleted. In 1972 he received his last patent, for a device to convert solar energy into electricity, shortly before his 100th birthday.

## ARCHAEOLOGY

Archaeology

## SCIENCE

Introductory Physical Science

Introduction to Biological Science

Earth Science

Astronomy — the Solar System

Introduction to Energy

Oceanography

Ecology

Introduction to Zoology

Junior Science Honors

Energy and the Future

Applied Human Biology

## Biology

Introductory Biology

Anatomy and Physiology

Advanced Placement Biology

## Chemistry

Elementary Introductory

Chemistry

Introductory Chemistry

Research in Chemistry

Elementary Organic Chemistry

Stereochemistry

Advanced Placement Chemistry

Honors Introductory Chemistry  
— Advanced Placement

## Physics

Introductory Physics

College Physics

The Physics of Technology

Advanced Physics

Physics Honors

Relativity and Quantum

Mechanics

## Special Science Courses

Animal Behavior

Observational Astronomy

Astronomy — The Universe

Beyond the Solar System

Geology

## PSYCHOLOGY

Human Relations

Human Sexuality

## OTHER COURSES

### INTERDISCIPLINARY

Study Skills

Synthesis. A Multidisciplinary  
Approach to Problems

Literature of the Quest

Russian Literature in English

Soviet Literature in English

Greek Literature in Translation

Roman Literature in Translation

Typing (non-credit)

### PHYSICAL EDUCATION

All Juniors and new Lower

Middlers are required to elect one trimester of PE. 10 in addition to their regular athletic commitment.

Physical Education







## Complementary Programs

Andover's complementary programs combine a number of innovative ideas designed to promote better coordination between public and private education nationally. The concept behind these programs is that of multiple schools. While one school may be accepted as the "home-base" diploma-granting institution, several other institutions may be utilized as complements to this school. Thus far, the multiple schools idea has taken form in several program models which are open to Phillips Academy students as well as students from other schools.

### The Andover Summer Session

The Andover Summer Session is a short intensive academic program in which both innovative and traditional courses are taught in only six weeks. Courses in all subjects and at all levels demand hard work — harder work than most students have ever before experienced. Besides English, modern languages, mathematics, history, and the sciences, the curriculum offers such opportunities as Play Production Workshop, Social Psychology, Great Philosophers, Law and Morality, and Film Workshop, Modern Astronomy, Archaeology and Anthropology, Oceanography and Marine Biology, and Modern Economics.

Other features of the Summer Session are special courses in writing, including the nationally known "Competence in Reading and Writing" (developed at Andover); an expanded ESL Program (English as a Second Language) for foreign students who wish to achieve English fluency; and a Chamber Music Program which provides a unique opportunity for musical students in all combinations of piano, strings, winds, and voice, including individual instruction, small ensemble work, orchestra, and

chorus. The Chamber Music Program is an integral part of the Summer Session with class hours, afternoon activities, mealtimes, etc., the same for music participants as for all other students.

The Summer Session makes use of all the school's facilities and is open to able boys and girls from all parts of the country and abroad. Applicants must be graduates of the 9th, 10th, 11th or 12th grades. The faculty and staff are an expert and diverse group of men and women, some of whom come from Phillips Academy and some from other schools and colleges. A catalog can be obtained by writing:

Jean C. McKee  
Admissions Coordinator  
The Andover Summer Session  
Phillips Academy  
Andover, MA 01810  
Tel. 617/475-3400, ext. 170

### (MS)<sup>2</sup>

The (MS)<sup>2</sup> — Math and Science for Minority Students — program offers minority students a better opportunity to enter technological fields at the college level. (MS)<sup>2</sup> provides three consecutive tuition-free summers of study at Andover. Ninth grade boys and girls are selected for their superior ability and strong interest in mathematics and science. The goal of (MS)<sup>2</sup> is to prepare minority students to compete successfully for careers in science, engineering and medicine. Further information can be obtained by writing:

Elwin Sykes, Director  
(MS)<sup>2</sup> Program  
Phillips Academy  
Andover, MA 01810





### The Short Term Institutes

The Short Term Institutes at Andover are intensive, multi-week courses of study in a single subject, designed to offer high school students a unique residential learning experience. First taught in the fall of 1974, the Institutes are scheduled during the winter and spring of each academic year and are intended to complement a student's home school program, not compete with it.

The average Institute enrolls a dozen students who are together for four hours of class, lab and work each day. Most STI students have been Seniors, but the program is open to any highly recommended student in the 10th, 11th or 12th grades.

While the curriculum changes from year to year, the STI program usually offers study in modern languages, physical and biological sciences, mathematics, and English. However, the actual courses themselves are generally rather innovative. Some of the past Institutes have been Issues in Law, Medicine and Education, Biochemistry, Creative Writing, Visual Studies, Advanced French, Finite Mathematics, Psychology, and Animal Behavior. All Institutes are taught by Phillips Academy faculty members.

STI students live together in a complex of dormitories and have at their disposal all the usual social, athletic and academic facilities of the Academy, as well as access to a variety of cultural facilities in Boston.

Time is scheduled during which STI students can partially maintain modest obligations to their home school classes. Most students are fully caught up within two or three weeks of their return home. Some STI students have been granted college credit for their Institute work, and the Dean of the STI program is happy to fill out college recommendations for any STI graduate.

For further information write:

Jean C. McKee  
Admissions Coordinator  
The Short Term Institutes  
Phillips Academy  
Andover, MA 01810  
Tel. 617/475-3400, ext. 172

Application deadline is December 15 for winter Institutes and March 15 for spring Institutes.





### School Year Abroad

School Year Abroad conducts programs for upper-classmen in France and Spain. Originated by Andover as an off-campus program, it was later jointly sponsored by Andover, Exeter and St. Paul's School. Students may spend a full academic year living with host families while pursuing a course of study under the supervision of teachers from the original sponsoring schools. The program provides full academic credit, permitting students to graduate from Phillips Academy with their own class, as well as the experience of immersion in a foreign culture. Qualified Upper Middlers and Seniors, who will have completed the American history and laboratory sciences requirements, are eligible for School Year Abroad. Phillips Academy tuition, fees and financial aid do not cover the cost of this program. A catalog can be obtained by writing:

Harrison F. McCann, Director  
School Year Abroad  
Phillips Academy  
Andover, MA 01810

### Other Off-Campus Programs

Andover offers several complementary residential programs. The Washington Intern Program, sponsored by Andover and Phillips Exeter Academy, allows a group of Upper Middlers and Seniors to spend the spring term in Washington working in the offices of U.S. Senators and Congressmen. Phillips Academy tuition, fees and financial aid do not cover the cost of this program.

In addition to school-sponsored programs, many Seniors arrange off-campus projects related to their special interests. Some have worked as interns with officials in local government and members of the Massachusetts legislature, while others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative and careful planning of a course of study that will meet diploma requirements and free a block of time during the term.



## Athletics



Archie Bush, Class of 1866, returned from the Civil War to complete his studies and organized a baseball team for Andover's first interscholastic sports competition. When Archie and his friends cut a geometry class to attend a baseball game, Principal Samuel Harvey Taylor, who brooked no nonsense, kicked them out of school. The Trustees rescinded this action years later and granted them all diplomas. Too late for Archie, who had died on his honeymoon trip to Europe.

In sports, as in studies, students are expected to meet basic requirements and are given wide choice in broadening and deepening their skills, interests and dedication in athletics.

A basic evaluation test is given to all new girls and boys to insure that each student has the physical skills necessary for further participation in the athletic program. Special courses are required of those students whose test results indicate a need for attention in the area of physical aptitude. Similarly, non-swimmers are given instruction toward meeting reasonable standards of proficiency. In addition, Juniors and new Lower Middlers take physical education five hours a week for one term, as well as regular athletics.

The regular afternoon athletic program includes a wide variety of offerings in varsity and junior varsity competitive interscholastic sports, in intramural cluster-organized athletics and in instructional and recreational physical activities. Wherever numbers permit, separate interscholastic competitive team programs are created for Junior boys.

Upperclassmen have the opportunity to substitute an activity or project for one term of athletics a year. Each spring the department attempts to offer an evening Senior Life Saving course and a Water Safety Instructors' course, in addition to required athletics, for those swimmers who wish official accreditation.

The school maintains several athletic facilities which include 12 playing fields and 25 tennis courts; the Borden, Memorial and Abbot Gymnasium Complex with swimming and diving pools, basketball and squash courts, weight training room



and other conventional gym spaces, the newly renovated Case Memorial Cage with its indoor track, the Sumner Smith Hockey Rink, the crew boathouse on the Merrimack River, the ski trails and jump at Holt Hill, and finally the Search and Rescue Room in Evans Hall which provides the base of operations for Andover's popular outdoor program.

Phillips Academy is committed to a required athletic program that provides a variety of sports and activities to its students. The Academy discourages overspecialization in sports at this age level; the athletic program is a complement to, not a substitute for, the academic curriculum. The Athletic Department oversees the program and its facilities with the support and advice of the Faculty Athletic Committee and the Student Athletic Advisory Board.

## Health Care

The Isham Infirmary of Phillips Academy is fully licensed as a hospital by the Commonwealth of Massachusetts. The Medical Director, Dr. Roy Weymouth, is a pediatrician specializing in adolescent medicine and is a Fellow of the American Academy of Pediatrics. The Infirmary has an x-ray department with a full-time technician. Basic laboratory services are also available at the Infirmary. Qualified physiotherapists are available either in the Infirmary or Trainer's Room. Graduate nurses are on duty twenty-four hours daily, and additional graduate nurses manage the Outpatient Services from 7:30 a.m. to 8:00 p.m. Isham Infirmary is staffed and equipped to care for most problems, and nearby general hospitals are available for major surgery or serious emergencies.

In addition to the daily outpatient clinic held by the Medical Director, regular clinics are conducted at Isham Infirmary in dermatology, orthopedics, and dentistry. Staff consultants are available in most specialty fields of practice, and full-time clinical psychologists can provide professional counseling.

### FALL TERM

Boys  
Ballet  
Crew  
Cross-Country  
Cycling  
Football  
Forestry  
Jogging  
Karate  
Modern Dance  
Search & Rescue  
Soccer  
Squash  
Tennis  
Yoga  
Girls  
Ballet  
Crew  
Cross-Country  
Cycling  
Field Hockey

Forestry  
Jogging  
Karate  
Modern Dance  
Search & Rescue  
Soccer  
Squash  
Tennis  
Volleyball  
Yoga

### WINTER TERM

Boys  
Ballet  
Basketball  
Gymnastics  
Hockey  
Jogging  
Modern Dance  
Paddle Tennis  
Search & Rescue

Skating  
Competitive (Alpine and Nordic)  
Recreational (Cross-Country)

Squash  
Swimming  
Track  
Wrestling

Girls  
Ballet  
Basketball  
Gymnastics  
Jogging  
Modern Dance  
Paddle Tennis  
Search & Rescue  
Skating  
Competitive (Alpine and Nordic)  
Recreational (Cross-Country)

Squash  
Swimming  
Track (non-competitive)

### SPRING TERM

Boys  
Ballet  
Baseball  
Canoeing/Kayaking  
Crew  
Cycling  
Jogging  
Karate  
Lacrosse  
Modern Dance  
Search & Rescue  
Softball  
Squash  
Tennis  
Track  
Yoga

Girls  
Ballet  
Canoeing/Kayaking  
Crew  
Cycling  
Jogging  
Karate  
Lacrosse  
Modern Dance  
Search & Rescue  
Softball  
Tennis  
Track  
Yoga





## CALENDAR 1981-82

### Fall Term

Sept. 13, Sun.	New Students arrive
Sept. 15, Tues.	Old Students return
Sept. 17, Thurs.	Classes begin
Oct. 30, Fri.—	Parents' Weekend
Nov. 1, Sun.	
Nov. 25, Wed.	Thanksgiving Break begins, 12:50 p.m.
Nov. 30, Mon.	Thanksgiving Break ends, 8 p.m.
Dec. 8, Tues.	Fall Term examinations begin
Dec. 12, Sat.	Examinations end — vacation begins, 12 noon

### Winter Term

Jan. 4, Mon.	Students return by 8 p.m.
Jan. 5, Tues.	Classes begin
Mar. 10, Wed.	Winter Term examinations begin
Mar. 13, Sat.	Examinations end — vacation begins, 12 noon

### Spring Term

Mar. 30, Tues.	Students return by 8 p.m.
Mar. 31, Wed.	Classes begin
Jun. 2, Wed.	Spring Term examinations begin
Jun. 5, Sat.	Examinations end, 12 noon
Jun. 6, Sun.	Commencement

In the 1840's the widow of Principal Osgood Johnson devoted herself to the care of sick Seminary students at Samaritan House, built and named for that purpose, now a student dormitory. In spite of this, rows of gravestones mark the toll of epidemics. An Academy graduate of 1890 reports that no such care as Widow Johnson's was available to the Academy students of the 1890's: "There was no infirmary. If you were ill, it was nobody's business but your roommate's, who brought you meals from Marland's unappetizing fare."

## APPLICATION PROCEDURE

Priority will be given to those candidates who complete the application procedure, including the interview, by February 1. A decision from the Admissions Committee will be mailed on March 10. The possibility of admission is considerably lessened for all applicants who complete the process after February 1, and decisions for this group may not be rendered before May 1. It is also possible that 12th Grade and Postgraduate candidates will not be notified until late spring. A deposit of \$200 is required to reserve a place at the time admission is offered to an applicant.



*Left to Right: Jean C. McKee, Admissions Coordinator; Grace H. Taylor, Administrative Assistant; Rebecca Carr, Admissions Officer; Rebecca G. Speers, Admissions Officer; Meredith Price, Associate Dean of Admissions; Joshua L. Miller, Dean of Admissions; Robert P. Hulburd, Admissions Officer; Not pictured: Frank F. D'Clemente, Liaison with Alumni Representatives.*

## THE 4 STEPS TO BE COMPLETED FOR APPLICATION

**1 Submit the Preliminary Application Card** and the non-refundable \$20 fee as soon as possible. (Checks are payable to the Trustees of Phillips Academy.) Application will not be considered unless the Preliminary Application Card and Fee are received.

**2 Complete the Personal Interview Requirement.** Candidates must complete the required interview by February 1. Candidates are urged to schedule interviews in either the spring, summer, or early fall of the year before they intend to matriculate. It is in everyone's best interests for the interview to take place as early as practicable. A visit to the Academy is desirable as it gives candidates a chance to have questions answered and to see the school. Please allow two hours for the tour and interview and be sure to dress with the weather in mind. Candidates who cannot visit the Academy are themselves responsible for arranging an interview with an Alumni Representative. (See page 54.)

**3 Return the Final Application Forms.** Final application forms, mailed in mid-November to candidates who have filed preliminary applications, should be returned no later than 10 days after the end of the fall marking period. Priority consideration is given to applications completed by the advertised deadline of February 1. ("Late applicants" should return forms immediately.) Teacher recommendations should be from current teachers.

**4 Take the Secondary School Admissions Test.** (12th Grade or Postgraduate candidates are not required to take the SSAT. See next page.)

### Secondary School Admissions Test

The Bulletin of Information for Candidates, published by the Educational Testing Service, Princeton, NJ 08540, will be sent by Andover to all 1981-82 candidates who have filed a Preliminary Application. This Bulletin describes the Secondary School Admissions Test, which will be given on the following dates:

December 12, 1981	March 6, 1982
January 16, 1982	April 24, 1982
June 19, 1982	

\*International administration

Candidates are strongly urged to take the SSAT administered in December, 1981. (The December tests will not be given in foreign countries.) Otherwise, the candidate should take the January, 1982 administration.

### Twelfth Grade or Postgraduate Candidates

Instead of the Secondary School Admissions Test, Senior and Postgraduate candidates must take the Preliminary Scholastic Aptitude Test or the College Board Scholastic Aptitude Tests (C.E.E.B., Box 592, Princeton, NJ 08540). After the test date candidates must ask the College Board, in writing, to send all test results to Phillips Academy. A check or money order for \$3 made out to C.E.E.B. must accompany that request.

Postgraduates are full-fledged members of the Senior Class and are eligible for all school activities. Because of their academic credits, they frequently have maximum flexibility in course selection.

### Whom to Contact at Andover

If you have questions about Andover's admissions or applications procedures, please contact the Admissions Office:

Dean of

Admissions: Joshua L. Miner

Address: Admissions Office  
Phillips Academy  
Andover, Massachusetts 01810

Office hours: Monday through Friday, 8:30 a.m. to 4:30 p.m.  
Saturday, 8:30 a.m. to 12:00 noon

Telephone: 617/475-3400

### Early Decision

Andover will not participate in any early decision plan for admissions in September, 1982.

### "Youth from Every Quarter"

The School's *Constitution*, written in 1778, states that Andover "shall be ever equally open to Youth of requisite qualifications from every quarter." With this principle in mind, the basic requirement for admission to Andover today continues to be evidence of sound character and strong academic achievement. The school is especially interested in candidates who demonstrate maturity and concern for others in addition to high performance in particular studies or activities. Valuing diversity in its student body, the school seeks to bring together a community from all parts of the country and from many nations.

The Admissions Committee selects from over 3,200 candidates the 400 most promising and deserving young people. The school's endowment covers approximately one-third of the cost of an Andover education. Therefore, in fact, every student receives financial aid. In addition, thanks to the generosity of a large number of alumni and friends, further financial assistance is available (see Financial Aid Section, page 53).

## School Costs and Financial Aid

### Tuition and Fees, 1981-82

The annual charge for 1981-82 is \$7200 for boarding students and \$5500 for day students.

	Boarding	Day
Tuition	\$4700	\$4700
Room	1240	—
Meals	960	530
Athletics and Activities	165	165
Health	135	105
Total	\$7200	\$5500

#### Day Students

*Day students must live in Andover, North Andover, North Reading, Methuen or Lawrence.*

Phillips Academy admits students of any sex, race, color, national and ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. It does not discriminate on the basis of sex, race, color, national and ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs.

To reserve a student's place for a given school year, a deposit in the amount of \$200 must be received by May 1 in the case of a returning student or by the acceptance deadline in the case of a new admission. This payment applies only as a credit to the school year's final scheduled billing. It is non-refundable under any circumstances.

One-half of the above tuition and fees is payable on August 1, and one-half, less the deposit, on December 1.

An alternative is the use of the Insured Tuition Payment Plan, arranged with a private agency. Information about this alternative and an application form are sent to the parents before the first bill is due.

No rebate will be made against the amount of the installment due on August 1 for any student who for any reason is dismissed or withdrawn after registration in the fall. No rebate will be made against the installment due on December 1 for any student who is dismissed or withdrawn after returning to school at the beginning of the winter trimester.

These charges cover instruction, board, room (including basic furniture), physical training and most athletic privileges, use of laboratory equipment and material, admission to all authorized athletic contests and most authorized entertainments at George Washington Hall or elsewhere on campus, including the Saturday evening motion pictures.

The school charges do not include tutoring, language training, special instruction in music or certain athletics, materials fees for art courses, medical expenses, laundry, textbooks, dues to school organizations or breakage and damage to school property. The school charges do not include cost of participation in the Washington Intern Program, School Year Abroad, or other off-campus programs. The school provides uniforms and most athletic equipment. Students are required to bring their own footwear and urged to bring along whatever other personal athletic equipment they already possess. Bills for items not included in the school charges may be rendered at any time during the school year.

All charges must be paid by their due date in order to assure a student's place at the Academy.



Students with past-due bills may be terminated at any time. The diploma of the Academy will not be awarded to Seniors whose school accounts are not paid in full by June 1.

### Other Expenses

As a rough guide to parents in budgeting for the total expected expenses of each academic year, the following low-average approximations of extras are given:

Travel	According to home location
Athletic Equipment	\$100
Laundry and Cleaning	175
Medical Insurance (optional)	35
Books and Supplies	275
Dues, publications and charitable contributions	30
Breakage Deposit (refundable)	50
Miscellaneous, including spending money	200

### Financial Aid: The Andover Plan

Phillips Academy will do its best to see that no admitted student is denied the chance to attend due to inability to finance his or her education here. To that end, the Academy provides over \$1,000,000 in direct financial aid each year, in addition to endowment support for all students. Under the comprehensive Andover Plan, families with incomes of up to \$60,000 a year may qualify for some form of direct assistance from the Academy.

The Andover Plan consists of three parts:

- I. General support of all students' educational cost, principally through income from the school's \$68,000,000 endowment, a product of the generosity of past Andover graduates, parents and friends. This income pays more than 34 percent of the real costs of the educational services Andover actually offers.
- II. Scholarships supplemented, as necessary, by a Student Loan Plan, for qualifying students, ranging from several hundred dollars to total



costs, as needs warrant and funds permit based upon information provided through the School Scholarship Service in Princeton, N.J. Repayment of low interest Student Loans begins four years after graduation, with an additional four years allowed for completion. Each family indicating a need for assistance on the Preliminary Application Form will be mailed a Parents' Financial Statement which is processed by the School Scholarship Service in Princeton, N.J. *All awards are reviewed annually and a Parents' Financial Statement must be filed each year if continued aid is needed.*

- III A new Parent Loan Plan available, at a modest rate of interest, to families in the \$20,000 to \$60,000 income range, as their needs require, with preference given to students entering 9th and 10th grades. Repayment of these loans begins immediately but repayment of the principal is deferred during the students' college years and then continues for two additional years.

The combination of general endowment support with the programs of Scholarships for low income students, Scholarships and Student Loans for a broad spectrum of need, and Parent Loans for middle and upper income families gives Andover the flexibility to provide maximum assistance to families seeking an Andover education.

Requests for aid filed after the January 15 deadline may not be processed in time to be included in the initial allotment of Scholarship funds. Requests filed after January 15 must wait subsequent availability of scholarship monies.

## Alumni Representatives

While it is advisable from the student's point of view to visit the school, frequently distance renders a visit impractical. When this is the case, the candidate should write or telephone for an interview with the most conveniently located Alumni Representative. (Please see list on page 55.) When you arrange for an interview with an Alumni Representative, please notify the Andover Admissions Office of the date of the interview and the name of the interviewer. This procedure will help us keep your records up to date. A candidate unable to arrange for an Alumni Representative Interview should communicate with the Admissions Office for assistance.

## Admissions Travel Schedule

During the coming school year the Admissions Office representatives plan to be in the following cities:

October 6-7	Montreal
October 18-23	San Francisco / Oakland / Los Angeles / San Diego / Denver
October 26-30	Minneapolis / Detroit / Chicago / Cincinnati
November 2-4	Brooklyn / New York City
November 16-20	North Carolina / Washington / Baltimore / Philadelphia

## ALABAMA

### Birmingham

Miss Jacqueline Carter '72  
P.O. Box 7964 35228  
Robert B. Donworth, Jr. '42  
Bradley, Arant, Rose & White  
Suite 1500, Brown-Marx Bldg.  
2000 First Ave. North 35203

### Mobile

David F. Dean, M.D. '56  
612 Montclair Way West 36609

## ALASKA

### Anchorage

John K. Brubaker '55  
2110 Otter St. 99504  
Howard S. Reed '45  
6112 Prosperity St. 99504

### Fairbanks

K. Andre McMullen '66  
Star Route — Box 10088  
99701

## ARIZONA

### Litchfield Park

George T. French '29  
P.O. Box 578  
609 North Litchfield Rd. 85340

### Scottsdale

Mrs. William E. Dampier '47  
4721 North 70th St. 85257

### Tucson

John S. Greenway '42  
1634 North Olsen Ave. 85719  
Prof. Richard L. Morse '53  
University of Arizona College of  
Engineering, Dept. of Nuclear  
Engineering 85721  
Donald B. Rollings '70  
3805 E. Calle Barcelona 85716

## ARKANSAS

### Forrest City

Henry Loeb III '39  
Growers Equipment Co.  
P.O. Box 748 72335

### Little Rock

Mose Smith III, M.D. '48  
5326 West Markham St. 72205

## CALIFORNIA

### Arcadia

Reginald D. Barnes, Jr. '58  
557 Gloria Rd. 91006

### Beverly Hills

John J. Leone '66  
9848 Portola Dr. 90210



### Corona Del Mar

John E. Kidde '64  
3907 Inlet Isle Dr. 92625

### Fresno

Geoffrey M. Brittin, M.D. '52  
8269 Sanders Ct. 93727

### Laguna Niquel

Jonathan E. Mudge '75  
33622 Halyard Drive 92677

### La Jolla

Kevin O'Brien '71  
Dean Witter & Co., Inc.  
1020 Prospect St. 92038

### Los Altos

Philip J. Kann '71  
327 Lunada Ct. 94003

### Los Angeles

\* David A. Cathcart '57  
Gibson, Dunn & Crutcher  
515 South Flower St. 90071  
Robert J. Cathcart '64  
707 Wilshire Blvd.  
Suite 3200 90017  
Alan Chmura '69  
1015 W. 34th St., #1405 90007  
George W. Davis III, M.D. '52  
4616 Keniston Ave. 90043  
Walter L. Farley, Jr. '28  
12300 1st Helena Dr. 90049  
Alan L. Fox '60  
1880 Century Park East  
Suite 1500-90067  
Tel: 415/572-3445  
Trevor A. Grimm '56  
Kaplanis & Grimm  
551 South Oxford Ave. 90020  
Timothy C. McChristian '73  
4155½ S. Dalton 90062

Christopher L. Rafferty '66  
Union Venture Corporation  
445 South Figueroa St. 90071  
Thompson K. Vodrey '52  
840 South Fairfax Ave. 90036

### Marysville

Harold S. Edwards '28  
770 Ramirez Rd. 95901

### Newport Beach

Jonathan Leung '75  
2900 Park Newport #426 92660

### Oakland

Mrs. Deborah Little Paris '66  
326 Athol Ave. 94606 (or 25854  
Freezeout Rd., Duncan Mills 95430)

### Palo Alto

Henry E. Riggs '53  
634 Lowell Ave. 94301  
Donald A. Way '63  
541 Cowper Street, Suite D 94302

### Pasadena

Russell M. Decker '56  
691 Holladay Rd. 91106  
\*Graeme Henderson '52  
1613 Vista Lane 91103

### Ross

H. Leonard Richardson '45  
1 Circle Dr. 94957

### Riverside

Peter C. Parsons '55  
Riverside County Publishing Co.  
P.O. Box 8368 92505

### San Diego

Norman R. Allenby '51  
3222 Quimby St. 92106

### San Francisco

Hobart M. Birmingham, Jr. '62  
Bank of America Bldg.  
555 California St.-34th Floor 94104  
Patrick A. Cathcart '64  
Hancock, Rother & Bunshoft  
100 Bush St. 94104  
Bradley A. Geier '75  
90 Gold St. 94133  
William M-S. Lee '51  
580 Market St. 94104  
Samuel R. Miller '66  
Morrison & Foerster  
One Market Place  
Spear Street Tower 94105  
Patrick J. O'Hern '65  
3559 Jackson St., #20 94118  
Thomas E. Pollock III '61  
Thayer, Ringoen & Macdonald  
50 California St., 26th Floor 94611





William D. Sherman '60  
Pillsbury, Madison & Sutro  
225 Bush St. 94104  
William W. Sterling '57  
Heller, Ehrman, White & McAuliffe  
30th Floor  
44 Montgomery St. 94104

*San Rafael*  
William S. Creighton '39  
32 Woodoaks Dr. 94903

*Schubertopol*  
William D. Lynch '38  
10592 Occidental Rd. 95472

*Shingle Spring*  
Marshall T. Gleason '33  
3067 Cambridge Rd. 95682

#### COLORADO

*Aspen*  
John P. McBride '50  
105 Pacific Ave. 81611

*Colorado Springs*  
Mrs. William Boddington '41  
1433 Alamo Ave. 80907

#### Denver

Anthony T. Accetta '61  
Steele Park  
50 South Steele St., Suite 420 80209  
\*Peter Grant '49  
545 Race St. 80206  
Margot Kent '75  
4465 Newton St. 80211  
John F. Malo '40  
1108 15th St.  
Suite 807 80202  
David C. Wilhelm '38  
Wilhelm Company  
1200 Cherry Creek Plaza II  
650 South Cherry St., Box 22856  
80222

*Glenwood Spring*  
Rev. George P. Pierce '49  
546 Hyland Park Dr. 81601

*Littleton*  
William R. Rapson '63  
33 Fairway Lane 80123

#### CONNECTICUT

*Darien*  
David E. Winebrenner '58  
27 Briar Brae Rd. 06820

*Fairfield*  
Kenneth D. Krier '68  
75 Lalley Blvd. 06430

*Greenwich*  
Gerard E. Jones '55  
Deer Lane 06830  
Roger S. Seymour  
50 Porchuck Rd. 06830

*Westport*  
Robert B. Simonton '50  
25 Woody Lane 06880

#### DELAWARE

*Wilmington*  
Mrs. Robert Bryant '65  
2309 Saymore Rd. 19803  
Mrs. Reeves W. Hart, Jr. '47  
18 Briar Rd., Briarwood 19803

#### DISTRICT OF COLUMBIA

*Washington*  
Douglas O. Adler '70  
Sullivan & Beauregard  
Suite 925 North  
1800 M. Street, N.W. 20036  
George W. Betty '50  
3438 34th Place, N.W. 20016  
Stephen B. Clarkson '55  
Sullivan & Beauregard  
Suite 925 North  
1800 M. Street, N.W. 20036  
Lawrence C. Dalley, Jr. '45  
Brand, Dalley & Co  
888 17th St., N.W. 20006  
Andrew P. Ireland '48  
1513 Longworth Bldg. 20515  
Cornelius B. Kennedy '39  
Kennedy & Webster  
888 17th St., N.W. 20006  
J. Kenneth McDonald '50  
History Department  
George Washington University  
20052  
Malcolm H. Stevenson '71  
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#### FLORIDA

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Milam & Wilbur  
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Robert D. Van Cleve '50  
Riverside Clinic  
2005 Riverside Ave. 32204

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300 Island Dr. 33149

*Miami*  
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6971 S.W. 134th St. 33156  
David J. Williams II '38  
13815 S.W. 84th St. 33143

*Naples*  
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440 Spinnaker Dr. 33940

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3435 Sea Grape Dr. 33581  
Michael T. Madison '65  
The Marie Selby Botanical Gardens  
800 S. Palm Ave. 33577  
John D. Pitts '56  
324 Bob White Way 33577

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30303  
Louis J. Elsas, II, M.D. '54  
Medical Genetics  
P.O. Drawer AM  
Emory School of Medicine 30322  
\*Peter C. Mohr '54  
1035 Angelo Ct., N.E. 30319

### Columbus

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P.O. Box 2125 31902

### Savannah

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Savannah Orthopedic Clinic, P.C.  
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99 Fort St. 96813

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Mary's River Ranch 89823

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Roger L. Strong '44  
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Peter Wertimer '67  
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Peregrine White '29  
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Plaza 28280  
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Thomas S. Shore, Jr. '57  
Rendigs, Fry, Kiely & Dennis  
907 Central Trust Tower 45202

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44114  
Joseph A. Valencie '72  
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*Cleveland Heights*

\*Edward D. Yost '47  
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*Granville*

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\*Broughton H. Bishop '45  
Pendleton Woolen Mills  
P.O. Box 1691 97207  
Mort Bishop III '70  
Pendleton Woolen Mills  
218 S.W. Jefferson St. 97201



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2373 Johnson, N.W. 97210

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2250 N.W. Flanders St. 97210

Rodney E. Lewis, Jr. '67  
3225 NE 20th St. 97212

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Paul L. Kelly '58  
Zapata Tower  
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James H. Lee '67  
1111 Briarmead Dr. 77057  
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Spruce Hill, Cismont 22947

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Frederick W. Hayes '45  
212 Overlake Dr. East 98004  
Walter S. Kimball, M.D. '30  
3404 76th Ave., N.E.  
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7615 East Mercer Way 98040  
John Poinier, Jr. '53  
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*Racine*

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3030 Michigan Blvd. 53402

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181 No. Adams, Apt. A 82834

*Story*

Maurice Leon, Jr. '42  
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*Wilson*

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LaHetraie 213  
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# HAITI

## Port-au-Prince

Frederick C. Thomas 46  
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Guaynabo 00657

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## Dhahran

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1202

## Pratteln

John R. Thompson 41  
Firestone Schweiz  
4133

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Heimeran von Stauttenberg 54  
Im Braechli 56 Ch 8053

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# VIRGIN ISLANDS

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# WEST GERMANY

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D-1000  
33

## Bochum

Edwin A. Hopkins 56  
Mercatorster 11  
4630 Bochum 1  
W. Germany

## Hamburg

Friedrich K. Gerner 40  
7 Nonensteig  
2000 Hamburg 13

## Munich

Alexander J. Belida Jr. 66  
Franz-Joseph-Strasse 41  
40

# YUGOSLAVIA

## Beograd

James L. Clunan 56  
American Embassy  
50, Kneza Milosa

# STATISTICAL INFORMATION for 1979-1980



In 1864 Shimeta Neesima left Japan as a stowaway on the clipper ship "Wild Rover" for America and sold his samurai sword for a Chinese New Testament. He was adopted by the shipowner, an Andover Trustee, was christened Joseph Hardy Neesima, graduated from Andover in 1867, later from Amherst and the Andover Theological Seminary, and became the first Japanese to be ordained a Congregationalist minister. Neesima returned to Japan to found The Doshisha, a great university in Kyoto dedicated to Japanese and Christian ideals. Doshisha recently celebrated its 100th birthday.

## Geographical Distribution

Alabama	1	Aruba	1
Alaska	2	Barbados	1
Arizona	4	Bermuda	1
California	48	Canada	5
Colorado	17	Rep. of China	1
Connecticut	86	Peoples Rep. of China	1
Delaware	1	Colombia	2
District of Columbia	14	Costa Rica	1
Florida	18	France	6
Georgia	8	Germany	5
Hawaii	1	Ghana	1
Illinois	37	Great Britain	2
Indiana	1	Hong Kong	2
Iowa	5	Iran	3
Kansas	1	Israel	1
Kentucky	2	Italy	2
Louisiana	4	Japan	1
Maine	29	Korea	2
Maryland	9	Libya	2
Massachusetts	438	Malaysia	1
Michigan	10	Mexico	1
Minnesota	2	Norway	1
Mississippi	3	Saudi Arabia	4
Missouri	7	Singapore	1
Montana	1	South Africa	2
Nevada	1	Spain	2
New Hampshire	24	Switzerland	1
New Jersey	37	Venezuela	3
New Mexico	1	Total Foreign	56
New York	196	Total U.S.	1136
North Carolina	11	TOTAL	1192
Ohio	28		
Oregon	2		
Pennsylvania	17		
Rhode Island	8		
South Carolina	3		
South Dakota	1		
Tennessee	10		
Texas	11		
Utah	2		
Vermont	12		
Virginia	12		
Washington	4		
West Virginia	1		
Wisconsin	4		
Caribbean Islands (U.S.)	2		
Total U.S.	1136		

	Girls	Boys	Total
Seniors	141	251	392
Uppers	148	215	363
Loweres	114	174	288
Juniors	54	95	149
Totals	457	735	1192
Total Boarding Students			968
Total Day Students			224
TOTAL			1192

# College Matriculations for the Class of 1979

The Class of 1979 applied for 842 to  
400 colleges and matriculated in 241  
colleges and universities during the  
summer.

COLLEGE	AD- MITTED	MATRIC- ULATED	COLLEGE	AD- MITTED	MATRIC- ULATED	COLLEGE	AD- MITTED	MATRIC- ULATED
Amherst	0	3	Kenyon	5	2	Wellesley	4	2
Arizona State	1	1	Lafayette	5	2	Wesleyan	34	12
Univ. of Arizona	1	1	Lake Forest	4	2	Wheaton (Mass.)	1	1
Barnard	13	6	Lehigh	6	2	Wheaton (Ill.)	1	1
Bates	5	2	Lewis & Clark	6	2	Williams	4	4
Beloit	3	2	Macalester	4	1	Univ. of Wisconsin	8	2
Boston Coll.	7	2	Univ. of Maine	1	1	Yale	34	17
Boston Univ.	9	5	MIT	3	1			
Bowdoin	4	2	Univ. of Massachusetts	17	3			
Brown	43	17	Miami Univ.	2	1			
Bryn Mawr	4	2	Univ. of Michigan	19	6			
California Coll. of Arts & Crafts	1	1	Middlebury	11	4			
Univ. of California Berkeley	23	11	Mount Holyoke	6	2			
San Diego	1	1	Newcomb	7	3			
Santa Cruz	4	1	Univ. of New Hampshire	6	1			
Carleton	8	2	Univ. of North Carolina	10	5			
Carnegie Mellon	5	2	Northwestern	44	13			
Univ. of Chicago	13	2	Oberlin	20	5			
Claremont Men's	5	3	Ohio Wesleyan	20	5			
Colorado Coll.	1	1	Univ. of Oregon	1	1			
Univ. of Colorado	14	4	Univ. of Pennsylvania	25	6			
Columbia	17	4	Pomona	12	5			
Connecticut Coll.	21	4	Princeton	23	13			
Cornell	18	11	St. Lawrence	4	1			
Dartmouth	23	11	Skidmore	3	1			
Davidson	1	1	Smith	15	4			
Denison	9	1	Stanford	26	16			
Univ. of Denver	1	1	Syracuse	8	2			
Duke	23	6	Trinity (Conn.)	7	3			
Univ. of Florida	2	2	Tufts	11	2			
Georgetown	23	10	Tulane	12	3			
Goucher	2	1	Union	2	1			
Hamilton	4	3	U.S. Military Academy	1	1			
Hampshire	2	1	Vanderbilt	13	2			
Harvard	46	20	Vassar	8	1			
Hollins	1	1	Univ. of Vermont	28	6			
Holy Cross	1	1	Univ. of Virginia	15	5			
Univ. of Illinois	1	1						
Ithaca	1	1						
Johns Hopkins	15	6						



## College Admissions

Admission to colleges is not based on a student's mere presence at Andover, but is based on how well the student has used this experience. All selective colleges exercise judgments relative to factors over and above academic ability in selecting a freshman class. While some of these factors relate to exceptional talents in one area or another, others are related to diversity in background and educational objectives.

The college admissions picture is entirely different and infinitely more complex now than it was in past decades. Competition for admission to selective colleges is rigorous, and Andover students are encouraged to apply across a range of choices to colleges with varying degrees of selectivity. The one constant in all of this should be a real desire to educate oneself. To this end the College Counseling Office works with the class as a whole and with each candidate to help each one draw up a list of colleges that makes sense.

Phillips Academy seniors go to college well prepared for the academic program and social experience that lies ahead.







## TRUSTEES

DONALD HOLMAN McLEAN, JR. '28  
A.B., LL.B.

*President*

elected 1958

elected President 1968

Andover, Massachusetts

THEODORE RYLAND SIZER

A.B., M.A.T., Ph.D., Ped.D., Litt.D.

*Clerk*

elected 1972

Andover, Massachusetts

CHARLES APPLETON MEYER '35

A.B.

*Treasurer*

elected 1969

elected Treasurer 1976

Lake Forest, Illinois

JOHN USHER MONRO '30

A.B.

elected 1958

Birmingham, Alabama

ROBERT LIVINGSTON IRELAND III '38

A.B., LL.B.

elected 1960

New York, New York

JOHN LEWIS COOPER '31

A.B.

elected 1968

Dover, Massachusetts

GERARD PIEL '33

A.B., D.Sc., Litt.D., L.H.D., LL.D.

elected 1969

New York, New York

WILLIAM WADE BOESCHENSTEIN '44  
S.B.

elected 1971

Perrysburg, Ohio

CAROL HARDIN KIMBALL '53

A.B.

elected 1974

New York, New York

MELVILLE CHAPIN '36

A.B., J.D.

elected 1974

Cambridge, Massachusetts

RICHARD LEE GELB '41

A.B., M.B.A.

elected 1976

New York, New York

STEPHEN BRADNER BURBANK '64

A.B., J.D.

elected 1980

Philadelphia, Pennsylvania

ELIZABETH PARKER POWELL '56

B.A., M.A., M.B.A.

elected 1980

Wellesley Hills, Massachusetts

### Alumni Trustees

ROBERT C. DEAN, JR. '45

B.S., M.S., Sc.D.

elected 1978 for three years

Norwich, Vermont

ALEXANDER B. TROWBRIDGE '47

A.B.

elected 1979 for three years

New Vernon, New Jersey

PHILIP M. DRAKE '43

A.B., L.L.B.

elected 1980 for four years

Greenwich, Connecticut

ANNE OLIVER JACKSON '53  
A.B.

elected 1980 for four years

Sewickley, Pennsylvania

WILLIAM W. ROSENAU '47

B.A.

Ex Officio as President of the Alumni Association

elected 1980

White Plains, New York

RICHARD C. STARRATT '54

B.A.

Ex Officio as Chairman

of the Alumni Fund

elected 1978

Englewood, New Jersey

### Trustees Emeriti

SUMNER SMITH '08

A.B.

1956-1960

Lincoln, Massachusetts

HENRY WISE HOBSON '10

D.D., LL.D.

1937-1966 (President 1947-1966)

Cincinnati, Ohio

STEPHEN YOUNG HORD '17

A.B.

1963-1968

Lake Forest, Illinois

CHARLES STAFFORD GAGE '21

A.B., A.M.

1952-1976 (Treasurer 1966-1976)

New Haven, Connecticut

PHILIP KIRKHAM ALLEN '29

A.B.

1969-1980

Andover, Massachusetts

## HEADMASTER'S OFFICE

THEODORE RYLAND SIZER  
*Headmaster (on leave 1981)*  
A B M A T Ph D Ed D

PETER QUACKENBUSH McEEL  
*Associate Headmaster Acting  
Headmaster 1981*  
*Associate Dean of Faculty*  
A B Ed M

AMY CAMSAY ROBINSON  
*Administrative Assistant to  
the Headmaster*

## OFFICE OF THE DEAN OF FACULTY

JOHN RICHARDS II  
*Acting Dean of Faculty*  
A B M A T

WILLIAM FRANKLIN GRAHAM  
*Clerk of the Faculty*  
S B

IANE HARRISON MUNROE  
*Administrative Assistant to  
the Dean of Faculty*

## OFFICE OF THE DEAN OF STUDIES

PHYLLIS WINDOVER POWELL  
*Dean of Studies*  
A B A M

HILBERT HARRY MORTON III  
*Registrar*  
A B

DAVID A. PENNER  
*Scheduling Officer*  
A B M A

JOAN F. SCHLOTT  
*Recorder*  
B S

## DEANS OF THE RESIDENTIAL CLUSTERS

DAVID OWEN COBB  
*Dean of Residence*  
A B A M

CARROLL WISLEY BAILEY  
*Abbet Cluster*  
A B JD

SUSAN MCINTOSH FLOYD  
*Pine Knoll Cluster*  
A B M A T

JOHN RICHARDS II  
*Co Dean Rabbit Pond Cluster*  
A B M A T

CAROL CAMERON RICHARDS  
*Co Dean Rabbit Pond Cluster*  
A A

JONATHAN A. STABLEFORD  
*West Quadrangle South Cluster*  
A B M A T

SYLVIA L. THAYER  
*Flagstaff Cluster*  
A B

JAMES ROBERT WILSON  
*West Quadrangle North Cluster*  
B S A M Ph D

## BUSINESS OFFICE

GEORGE A. NEILSON, JR.  
*Business Manager*  
B S M Ed

RICHARD CHARLES GRIGGS  
*Assistant Business Manager*  
A B

DONALD HENRY BADE  
*Comptroller*  
B B A

## OFFICE OF ADMISSIONS AND FINANCIAL AID

JOSHUA LEWIS MINER  
*Dean of Admissions*  
A B

MIRIDITH PRICE  
*Associate Dean of Admissions*  
A B M A T

RICHARD CHARLES GRIGGS  
*Director of Financial Aid*  
A B

ILAN C. McEEL  
*Admissions Coordinator*  
A B

DAITON HUNTER McBEE  
*Admissions Officer*  
A B

SARAH M. GATES  
*Admissions Officer*  
A B

THOMAS G. SPEERS III  
*Admissions Officer*  
B A

FRANK F. DICLEMENTE  
*Liaison with Alumni Representatives*  
S B





## FACULTY

The date following the name indicates the year the instructor joined the Andover faculty. This list reflects the faculty for the 1979-1980 school year.

THEODORE RYLAND SIZER (1972)

*Headmaster on the foundation in honor of John P. Stevens, Jr. '15; Instructor in History and the Social Sciences*

A.B., Yale; M.A.T., Harvard; Ph.D., Harvard; Ped.D., Lawrence University; Litt.D., Union College

MARIE MADELEINE BARATTE

(AA1946)

*Instructor in French*

B.es.I., University de Rennes; A.B., Dunfermline High School; M.A., Edinburgh University

FREDERICK ALMOND PETERSON

(1946)

*Director of Research & Evaluation; Instructor in English on the Elizabeth Milbank Anderson Foundation*

B.A., Yale; M.A., Harvard

PETER QUACKENBUSH McKEE (1947)

*Associate Headmaster; Dean of Faculty; Instructor in Physics on the Donna Brace Ogilvie Teaching Foundation*

B.A., Middlebury; Ed.M., Harvard

DOROTHY Y. JUDD (AA1948)

*Instructor in Spanish*

B.S., William and Mary; M.A., Columbia; M.A., Middlebury

GORDON GILMORE BENSLEY (1949)

*Instructor in Art on the Ammi Wright Lancashire Foundation*

A.B., Yale

JOHN RICHARD LUX (1949)

*Chairman, Mathematics Department; Instructor in Mathematics on the Walter Scott Leeds Teaching Foundation*

B.S., Pennsylvania State University; M.S., Ed., University of Pennsylvania

WILLIAM LOUIS SCHNEIDER (1949)  
*Instructor in Music*  
Mus. Ed. B. Northwestern

SHIRLEY J. RITCHIE (AA1950)  
*Assistant Director of Physical Education and Athletics. Instructor in Physical Education*  
B.S. Trenton State College

FREDERIC ANNESS STOTT (1951)  
*Secretary of the Academy*  
A.B. Amherst

PHILIP BROWNIE WILD (1951)  
*Chairman, Chemistry Department. Instructor in Chemistry and Physics on the George Peabody Foundation*

B.E. Yale. M.S. University of Michigan

WILLIAM FRANKLIN GRAHAM (1952)  
*Clerk of the Faculty. Instructor in Mathematics*  
S.B. University of Michigan

IRLD HAROLD HARRISON (1952)  
*Instructor in History and the Social Science on the Samuel Harvey Taylor Foundation*  
A.B. Yale. A.M. Trinity

JOHN CLAIRBORNE McCLEMENT (1952)  
*Instructor in Mathematics on the Cecil F.P. Bancroft Foundation*  
A.B. Yale. M.Ed. University of Pittsburgh

JOSEPH A. LLWIS MINER III (1952)  
*Dean of Admissions*  
A.B. Princeton

JAMES HAROLD COLUCH (1953)  
*Instructor in Spanish*  
A.B. M.A. University of Wyoming

SHERMAN FREDERICK DRAKE (1953)  
*Instructor in Mathematics*  
B.S. U.S. Naval Academy. Ed.M. Boston University

EDMOND EMERSON HAMMOND JR (1953)  
*Instructor in Mathematics on the Jonathan French Teaching Foundation*  
S.B. Haverford. Sc.M. Brown

LOUIS JOHN HOITSMA JR (1953)  
*Instructor in Mathematics*  
B.S. Ed.M. William and Mary

ROBERT PENNIMAN HUIBURD (1953)  
*Director of Alumni Affairs*  
A.B. Princeton. A.M. Middlebury

DAITON HUNTER McBEI (1953)  
*Admissions Officer*  
A.B. Bard College in Columbia University

ALBERT KARI ROLHIC (1954)  
*Counselor. Instructor in Psychology*  
A.B. Amherst. Ed.D. Harvard

ROBERT EDWIN LANE (1955)  
*Instructor in Latin and Russian on the Alfred Ernest Stearns Foundation*  
B.A., M.A., University of California at Berkeley

HAROLD HOLMES OWEN JR (1955)  
*Chairman, Department of Theatre and Dance. Instructor in English and Theatre*  
A.B. Amherst. M.A., University of New Hampshire

THOMAS JOSEPH REGAN (1955)  
*Instructor in English on the Frederick W. Beinecke Teaching Foundation*  
B.A., Yale; M.A., Boston University

WILLIAM BIGGS CLIFT, JR (1956)  
*Instructor in Music*  
B.S.M., Capital University Conservatory of Music

FRANK McCORD ECCLES (1956)  
*Instructor in Mathematics*  
B.S.M.E., Princeton; M.A., Harvard

HARRISON SCHUYLER ROYCE JR (1956)  
*Instructor in History and the Social Sciences*  
A.B., Amherst; M.I.A., School of International Affairs, Columbia

GERALD SHERTZER (1957)  
*Instructor in Art*  
B.F.A., M.F.A. Yale

GEORGE WILLIAM BEST (1958)  
*Instructor in Mathematics*  
B.S., Union College. A.M., Boston University

CLEMENT MORELL (1958)  
*Instructor in Mathematics*  
B.A., Northern Michigan. M.A., University of Michigan; M.S., University of Illinois

VIRGINIA POWELL (AA1959)  
*Instructor in Art on Abbott Academy Teaching Foundation*  
B.Des., Newcomb College

JOHN RICHARDS II (1959)  
*Acting Dean of Faculty. Co-Dean of Rabbit Pond Cluster. Instructor in History and the Social Sciences on the Alfred Lawrence Ripley Foundation*  
A.B., M.A.T. Harvard

JOHN PATTEN CHIVERS (1960)  
*Chairman, German Department. Instructor in German*  
A.B. Wesleyan. A.M. Middlebury

CARL EDWARD KRUMPE JR (1960)  
*Instructor in Classics and History*  
A.B., Wabash College; A.M., Brown

THOMAS REFS (1960)  
*Instructor in Chemistry*  
B.E., M.S., Ph.D., Yale

GEORGE HOWARD EDMONDS (1961)  
*Instructor in English. Coordinator of On-Campus Bicentennial Events*  
A.B., Amherst; Ed.M., Harvard

MARY SOPHIA MINARD (AA1961)  
*Instructor in History and the Social Sciences*  
B.A., Smith; M.A.L.S., Wesleyan

ALFRED JAMES COULTHARD (1962)  
*Instructor in Physical Education*  
S.B. Calvin Coolidge

WAYNE ANDREW FREDERICK (1962)  
*Instructor in History and the Social Sciences on the Emilie Belden Cochran Foundation*

B.S., Northeast Missouri State University; Ph.M., University of Wisconsin

ROBERT ANDREW LLOYD (1962)  
*Chairman, Art Department. Instructor in Art on the Independence Teaching Foundation Endowment*  
B.A., Harvard; M. Arch., Harvard Graduate School of Design

ALANSON PERLEY STEVENS III (1962)  
*Instructor in Russian and German*  
B.A., Dartmouth; M.A., Yale

THOMAS TOLMAN LYONS (1963)  
*Chairman, Department of History and the Social Sciences. Instructor in History and the Social Sciences*  
B.A., M.A.T., Harvard

- BARBARA McDONNELL (1963)  
*Director of the Oliver Wendell Holmes Library*  
A.B., Boston University; B.L.S., Simmons
- MEREDITH PRICE (1963)  
*Associate Dean of Admissions; Instructor in English*  
A.B., Amherst; M.A.T., Harvard
- JEAN MARY ST. PIERRE (AA1963)  
*Instructor in English*  
A.B., Wheaton; M.A., Columbia
- ALEXANDER ZABRISKIE WARREN (1963)  
*Instructor in Mathematics*  
A.B., Harvard; M.A.L.S., Wesleyan
- CHRISTOPHER CAPEN COOK (1964)  
*Director of the Addison Gallery of American Art; Instructor in Art*  
A.B., Wesleyan; M.F.A., University of Illinois
- DANIEL DRETZKA OLIVIER (1964)  
*Director of School Year Abroad, Remes, France, through 1979-80; Instructor in French*  
A.B., Haverford; M.A., Middlebury
- VINCENT PASCUCCI (1964)  
*Chairman, Division of Modern Language; Instructor in Classics and Modern Languages on the John Charles Phillips Foundation*  
A.B., M.A., Columbia; Ph.D., Brown
- AUDREY NYE BENSLEY (AA1965)  
*Instructor in Art*
- RONN NELS MINNE (1965)  
*Chairman, Division of Science; Instructor in Chemistry on the Martha Cochran Foundation*  
B.S., A.M., Northwestern; Ph.D., Harvard
- ANGEL RUBIO Y MAROTO (1965)  
*Chairman, Spanish Department; Instructor in Spanish*  
Titulo de Bachiller, Titulo del Magisterio, Universitario, Madrid; M.A., Washington University
- CRISTINA ALONSO RUBIO (AA1965)  
*Instructor in Dance*  
Licensed by the Spanish Academy of Performing Arts
- NATHANIEL BALDWIN SMITH (1965)  
*Instructor in Mathematics*  
B.S.E., Princeton; M.A., Northwestern
- HALE STURGES II (1965)  
*Instructor in French*  
A.B., Harvard; M.A., Middlebury
- THOMAS EDWARD CONE III (1966)  
*Chairman, Biology Department; Instructor in Biology*  
B.S., Trinity; M.A.T., Brown
- MICHAEL EDWARD MOSCA (1966)  
*Director of Accounting*  
B.A., M.B.A., Boston University
- DAVID ALBERT PENNER (1966)  
*Scheduling Officer; Instructor in Mathematics*  
B.A., Amherst; M.A., University of Maryland
- JOHN GIBSON TOMLINSON (1966)  
*Director of Physical Plant*  
B.S., U.S. Military Academy
- KENNETH KELLY WISE (1966)  
*Chairman, English Department; Instructor in English on the William M. Newman Teaching Foundation*  
B.A., Purdue; M.A., Columbia
- JAMES LEIGHTON BUNNELL (1967)  
*Director of Summer Session; Instructor in History and the Social Sciences*  
A.B., University of the South; A.M., Vanderbilt
- JOSEPH BELLEAU WENNIK (1967)  
*Director of Athletics; Instructor in German*  
B.A., Yale; M.A., Middlebury
- HILDA STROOP WHYTE (AA1967)  
*Instructor in Physical Science*  
B.S., Michigan State University; M.S., Tufts
- JAMES ROBERT WILSON (1967)  
*Dean of West Quadrangle North Cluster; Instructor in Chemistry*  
B.S., Stanford; A.M., Ph.D., Harvard
- SAMUEL IRVINE ALLISON ANDERSON (1968)  
*Instructor in French*  
A.B., Harvard; Diplome d'etudes, Universite de Paris; A.M., Columbia; M.A., Massachusetts; M.A., Middlebury
- DAVID OWEN COBB (1968)  
*Dean of Residence; Instructor in English; Director of Long Range Planning*  
A.B., University of Maine; A.M., Middlebury
- FRANK LEE HANNAH (1968)  
*Instructor in Mathematics*  
A.B., A.M., Dartmouth
- MARJORIE ALEXANDER HARRISON (AA1968)  
*Instructor in Physical Education; Director of the Work Program*  
A.B., Connecticut College
- ALOYSIUS JOHN HOBAUSZ (1968)  
*Director of the Audio-Visual Center*  
S.B., Puskas Telecommunication Institute, Budapest
- NICHOLAS VAN HOUTEN KIP (1968)  
*Chairman, Classics Department; Instructor in Classics*  
A.B., Princeton; M.A., Trinity
- CATHERINE JEANNE KIRKLAND (AA1968)  
*Chairman, French Department; Instructor in French*  
Licence es Lettres, Maitrise, Sorbonne
- SUSAN MCINTOSH LLOYD (AA1968)  
*Dean of Pine Knoll Cluster; Instructor in History and the Social Sciences and Music*  
A.B., Radcliffe; M.A.T., Harvard
- JOHN KENNEDY McMURRAY (1968)  
*Instructor in Art*  
B.A., Washington and Lee; M.A.T., Harvard
- RICHARD STOCKTON MacNEISH (1968)  
*Director of the Robert S. Peabody Foundation for Archaeology; Instructor in Archaeology*  
A.B., M.A., Ph.D., University of Chicago
- CHARLES EMORY APGAR III (1969)  
*Chairman, Physics Department; Instructor in Physics*  
A.B., Earlham College; M.A.T., Brown
- SUSAN B. CLARK (AA1969)  
*Instructor in Classics and History*  
A.B., Swarthmore; M.A., Yale
- MARION FINBURY (AA1969)  
*Director of College Counseling*  
A.B., Vassar
- RICHARD CHARLES GRIGGS (AA1969)  
*Assistant Business Manager; Director of Financial Aid*  
A.B., Princeton



THOMAS ROBERT HAMILTON (1969)  
*Instructor in Biology*  
 B.S., Tusculum College; M.S.  
 University of Pennsylvania  
 M.A.T., Brown

CHMECE NICOLAS KRIVOBOK  
 (AA1966)  
*Chairman, Russian Department; In-*  
*structor in French and Russian*  
 B.A., Swarthmore; M.A., Mid-  
 dlebury

CARROLL WELLEY BAILEY (1970)  
*Dean of Albert Center; Instructor in*  
*English*  
 A.B., I.D., University of Pittsburgh

ETHEL JOSEPH BAILEY (1970)  
*Assistant to the Comptroller*  
 S.B., Boston College

FRANCIS EMANUEL BELLIZIA JR.  
 (1966)  
*Acting Chairman, Department of*  
*Theatre and Dance; Instructor in*  
*Theatre*  
 A.B., Dartmouth; A.M., Middlebury

PAUL EALSTEN (1970)  
*Instructor in English*  
 A.B., Princeton; M.A.T., Yale

HENRY BONT WILMER JR. (1970)  
*Instructor in French*  
 B.A., Davidson; M.A., Middlebury

JOCELYN EVERETT CRABTREE (1971)  
*Instructor in Mathematics*  
 A.B., Bowdoin; M.A., Harvard  
 Ph.D., University of North  
 Carolina

ROBERT LEE CRAWFORD (1971)  
*College Counselor; Instructor in*  
*History and the Social Sciences*  
 B.A., Northwestern; S.T.B., The  
 General Theological Seminary  
 M.A., University of Pennsylvania

JOHN FRANK BASTIAN (1972)  
*Instructor in Biology and Theatre*  
 A.B., University of Pittsburgh

ROBERT MACNAMARA DIX (1972)  
*Instructor in Modern Languages*  
 A.B., Brown; A.M., Middlebury

BARBARA F. HAWKES (AA1972)  
*Instructor in Biology*  
 A.B., Tufts; M.S., Northeastern

ELIZABETH LYNN HERBST (1972)  
*Instructor in French*  
 A.B., Hamilton; A.M., University of  
 Pennsylvania

ALEXANDRA RAVIS KILMER MERRILL  
 (AA1972)  
*Chairman, Psychology Department*  
*Counselor and Instructor in*  
*Psychology*  
 B.A., Smith; M.A.T., Yale

GEORGE A. NELSON JR. (1972)  
*Business Manager*  
 B.S., M.Ed., Boston University

EDWARD IAY SARTON (1972)  
*Instructor in Physics*  
 B.S.F., Princeton; M.S.E., University  
 of Southern California

STEPHEN B. WICKS (AA1972)  
*Instructor in Art*

TESLIE BALLARD (1973)  
*Instructor in Chemistry and Biology*  
 B.A., Sarah Lawrence; M.A.T.,  
 Harvard

YOLANDE BAYARD (1973)  
*Instructor in French*  
 B.S., M.A., Central Connecticut  
 State College

ROBERT PETER PERRIN (1973)  
*Instructor in Mathematics and*  
*Physics*  
 B.S., Ph.D., Massachusetts Institute  
 of Technology

EDWIN GUSTAVUS QUATTLEBAUM III  
 (1973)  
*Co-Director of Washington Intern*  
*Program; Instructor in History and*  
*the Social Sciences*  
 A.B., Harvard; M.A., Ph.D., Uni-  
 versity of California

NANCY FAUST SIZER (1973)  
*Instructor in History and the Social*  
*Sciences*  
 B.A., Wellesley; M.A., Harvard

ELWIN SYKES (1973)  
*Director of (MS)<sup>2</sup> Program; Instruc-*  
*tor in English on the John H.*  
*Porter, Jr. Bicentennial*  
*Instructorship*  
 A.B., M.A., Harvard

MARY L. VAN DUSEN (1973)  
*Instructor in Remedial Languages*  
 A.B., Wellesley; M.Ed., Lesley

PRISCILLA KEENE BELLIZIA (1973)  
*House Counselor*  
 A.B., Bates; M.A.T., Brown

HELEN SCHNEIDER BEST (1974)  
*House Counselor*  
 B.S., Seattle University

CAROLYN B. BRECHER (1974)  
*Instructor in Modern Dance; Assis-*  
*tant in Audio Visual*  
 A.B., Bard College

PATRICIA HOPE EDMONDS (1974)  
*Director of Foundation Support*  
*House Counselor*  
 A.B., Mount Holyoke; M.A.T.,  
 Radcliffe

CHRISTOPHER JUDY GERRY (1974)  
*Instructor in Physical Education and*  
*History and the Social Sciences*  
 A.B., Harvard

JUDITH ADAMS HAMILTON (1974)  
*Dean of Flagstaff Cluster*  
 A.B., Tusculum College

SALLY CHAMPI IN HERBST (1974)  
*House Counselor*  
 A.B., Mount Holyoke

MARC DANA KOOLEN (1974)  
*Instructor in Biology*  
 B.S., St. Lawrence

ILAN CRAWFORD McKEE (1974)  
*Admissions Coordinator*  
 B.A., Middlebury

ELAINE SPATZ RABINOWITZ (1974)  
*Instructor in Painting*  
 B.A., Antioch; M.F.A., Tufts  
 University and Museum School

NATALIE GILLINGHAM SCHORR  
 (1974)  
*Instructor in French*  
 B.A., McGill; d.e.s., Aix-Marseille;  
 M.A., University of Pennsylvania

WILLIAM E. THOMAS (1974)  
*Chairman, Music Department; In-*  
*structor in Music*  
 B.A., Oberlin; M.F.A., Pennsylvania  
 State University

BARBARA LEE WICKS (1974)  
*House Counselor*

DONALD HENRY BADE (1975)  
*Comptroller*  
 B.B.A., University of Wisconsin

HELEN M. ECCLES (1975)  
*Director of Public Information*  
*House Counselor*  
 A.B., Bryn Mawr

DAVID LAMMETT IRWIN JR. (1975)  
*Instructor in Music*  
 B.M., Florida State University;  
 M.Mus., Yale Music School



- HERBERT HARRY MORTON III (1975)  
*Registrar; Instructor in Mathematics*  
A.B., Dartmouth
- CONSTANCE HALL STROHECKER (1975)  
*Director of Abbot Alumnae Affairs*
- SANDRA URIE THORPE (1975)  
*Assistant to Director of the Bicentennial Campaign*  
A.B., Stanford
- RICHARD H. WILSON, JR. (1975)  
*Instructor in Music*  
B.A., Harvard; M.Mus., New England Conservatory of Music
- VINCENT B.J. AVERY (1976)  
*Chairman, Department of Philosophy and Religious Studies; Instructor in Religion and Philosophy*  
S.T.L., Ph.D., Academia Alphon-siana, Rome
- ELAINE RANKIN BAILEY (1976)  
*Associate Cluster Dean*  
B.A., William and Mary
- SARAH ANNE DOOLITTLE (1976)  
*Instructor in Physical Education*  
B.S.Ed., Northeastern
- JANETTE ELIZABETH HANNAH (1976)  
*House Counselor*  
M.A., Edinburgh University
- SUZANNE EDDY KIP (1976)  
*House Counselor*
- MICHAEL ALLEN LOPES (1976)  
*Instructor in English*  
B.A., University of California at Berkeley; M.A., State University of New York at Stony Brook
- HARRISON FAIRFIELD McCANN (1976)  
*President, School Year Abroad*  
B.A., Williams; M.A., Middlebury
- PHYLLIS WENDOVER POWELL (1976)  
*Dean of Studies; Instructor in English and History*  
B.A., Wellesley; M.A., Harvard
- CAROL CAMERON RICHARDS (1976)  
*Co-Dean, Rabbit Pond Cluster; House Counselor*  
A.A., Bennett
- JONATHAN A. STABLEFORD (1976)  
*Dean of West Quadrangle South Cluster; Instructor in English*  
B.A., Williams; M.A.T., Wesleyan
- REBECCA MILLER SYKES (1976)  
*House Counselor*  
A.B., Radcliffe
- ANN WICKINS CALDWELL (1977)  
*Associate Secretary of the Academy and Associate Director of the Bicentennial Campaign*  
A.B., University of Michigan
- EVERETT E. GENDLER (1977)  
*Jewish Chaplain; Instructor in Religion and Philosophy*  
B.A., University of Chicago; M.H.L., Jewish Theological Seminary
- MARTHA JOHNSON BEATTIE (1977)  
*Instructor in Mathematics*  
A.B., Dartmouth
- LOUIS M. BERNIERI (1977)  
*Instructor in English*  
A.B., Harvard
- PETER ADDLEY GILBERT (1977)  
*Co-Director of Washington Intern Program*  
B.A., Dartmouth
- THOMAS R. HENNIGAN (1977)  
*Dean of Short Term Institutes; Roman Catholic Chaplain; Instructor in English*  
B.A., Villanova; M.A., Augustinian College Seminary
- THOMAS SALKALD HODGSON (1977)  
*Instructor in Religion and Philosophy*  
B.A., Williams; M.A., Yale
- REBECCA D. McCANN (1977)  
*Instructor in Spanish*  
A.B., Lake Erie; M.A., Middlebury
- DAVID B. POTTLE (1977)  
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B.A., Northwestern; Ph.D., Tufts
- RUTH QUATTLEBAUM (1977)  
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A.B., Wheaton; M.A., Columbia
- JAMES L. SHELDON (1977)  
*Curator of Photography*  
A.B., Cornell
- DIANE L. SOUVAINE (1977)  
*Instructor in Mathematics*  
A.B., Radcliffe
- CAROLE L. TAPPAN (1977)  
*Instructor in Language*  
B.S., Ed.M., Boston University
- CHRISTOPHER R.H. WALTER (1977)  
*Instructor in French*  
A.R.C.M., Royal College of Music; M.A., Oxford
- JANE WHEELER (1977)  
*Curator of the R.S. Peabody Foundation for Archaeology; Instructor in Archaeology*  
B.A., The American University; Ph.D., University of Michigan
- CHARLES ALLEN WILLAND (1977)  
*Instructor in Biology*  
B.S., Brown; M.S., University of South Carolina
- J. PHILIP ZAEDER (1977)  
*Protestant Chaplain; Instructor in English*  
B.A., M.Div., Yale
- KATHERINE WAYNICK BASTIAN (1978)  
*House Counselor*  
A.B., Meredith
- JEANNE E. BUSSIÈRE (1978)  
*Instructor in English*  
B.A., Dartmouth; M.A., University of London, Queen Mary College
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*Instructor in Physical Education*  
B.S., Miami University of Ohio
- MARY M. GRAHAM (1978)  
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- SUSAN BROWNELL HODGSON (1978)  
*House Counselor*  
B.A., Wellesley; M.A., University of Connecticut
- MARY J. McCARTHY (1978)  
*Instructor in Art*  
A.A., Bay Path Junior College; B.A., William Paterson College
- SUSAN R. McCASLIN (1978)  
*Director of Publications Office; Instructor in Philosophy and Religion*  
B.A., Smith; M.T.S., Harvard Divinity School
- DIANA I. McNAB (1978)  
*Instructor in Physical Education*  
B.S., State University of New York at Buffalo; M.Ed., Boston University
- GERALDINA MATTIA (1978)  
*Instructor in Physical Education*  
B.S., East Stroudsburg State College

## CANFALL, O. DEETER (1978)

*Instructor in English*B.A. Washington & Jefferson  
M.A. University of New  
Hampshire

## VIVIAN J. SAWABINI (1978)

*Admissions Officer*

B.S. University of Vermont

## JOE C. SMITH (1978)

*Instructor in English*

B.A. M.A. Bucknell

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*Guest F. Murray Instructor in  
English and Writer in Residence*B.A. St. Francis M.A. Ph.D.  
University of Virginia

## RONALD J. THORPE (1978-1978)

*Assistant to the Headmaster. In-  
structor in Civics. Director of the  
Adult Learning Study Program*

B.A. Ph.D. Harvard

## JOAN A. ALVAREZ (1978)

*Instructor in English*

B.A. Middlebury M.A. Syracuse

## JANNE AMETER (1979)

*Instructor in History and the Social  
Sciences*

A.B. Mt. Holyoke M.A. Stanford

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Divinity School M.A.L.S.  
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## DAVID A. EVANS (1979)

*Instructor in History and the Social  
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## CHRISTOPHER K. FAY (1979)

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B.A. Dip. Ed. University of Sydney

## EDWARD B. GERMAIN (1979)

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*Associate Director of the Library*B.A. M.A. California State Uni-  
versity M.I.S. University of  
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## CYNTHIA ASHLEY STABFORD (1979)

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B.A. Wellesley

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## SHELLEY M. WEISS (1979)

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Social Functions*

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## ROY E. WEYMOUTH, JR. (1979)

*Medical Director*A.B. Bowdoin M.D. Tufts Univer-  
sity School of Medicine

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B.S. Lesley

## EDWARD C. YASUNA (1979)

*Instructor in English*B.A. Columbia M.A. University of  
Michigan Ph.D. Ohio State  
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## TEACHING FELLOWS

## MARK GEORGE AIBURGER

*Teaching Fellow in Music*  
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B.A. Bowdoin

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B.A. University of Chicago

## WILLIAM ARMSTRONG POWELL III

*Teaching Fellow in French*  
A.B. Stanford

## HELENE CATHERINE RASSIAS

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B.A. Amherst

## JOHN M. SANDERSON

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B.A. Middlebury

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Academy Association*  
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## JANE PAYER SOYSTER

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Social Sciences on Elizabeth Rogers  
Teaching Fellowship*  
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Academy Association*  
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## CLARA IDALIA TAVARES

*Teaching Fellow in Spanish*  
B.A. Tufts

## MAUREEN ELLEN WALSH

*Teaching Fellow in English*  
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## PETER S. WELLS

*Teaching Fellow in English on Joseph  
R. W. Dodge Teaching Fellowship*  
B.A. Williams

## FACULTY ASSOCIATES

- YOLANDA R. BALLOU  
*Library Cataloguer*  
B.A., University of Massachusetts;  
M.L.S., Simmons
- LINDA HATHAWAY BUNZA  
*Manager of The Andover Review*  
A.B., Bates; M.A., Hartford  
Seminary Foundation
- MARGARET F. COUCH  
*Assistant Cataloguer*  
A.B., Wheaton
- PAULA SCALERA CROSS  
*Library Collection Developer*  
B.A., Salem State; M.L.S., University of Rhode Island
- MARJORIE CROSSLEY, R.N.  
*Nurse, Isham Infirmary*  
Lawrence General Hospital School of Nursing
- KATHLEEN GONSALVES  
*Reference Librarian*  
S.B., M.L.S., Simmons
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*Administrator, Isham Infirmary*
- GLORIA HOLBROOK, R.N.  
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Lawrence General Hospital School of Nursing
- MARIE-LUISA KRIVOBOK, R.N.  
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R.N., Sankt Hedwig Klinik, Mannheim, W. Germany
- ELIZABETH KRUMPE  
*Hostess at Cooley House*  
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- JEANNETTE GRANGER MUNROE  
*Hostess at the Underwood Room*
- VIRGINIA MURPHY, R.N.  
*Nurse, Isham Infirmary*  
St. John's Hospital School of Nursing
- THOMAS B. POOL  
*Director of Food Services*
- ANN P. ROYCE  
*Assistant Director, Audio-Visual Center*
- CAROLYN D. SKELTON  
*School Organist*  
B.A., Hastings College; M.M., New England Conservatory of Music

- ALBERTA B. STAMMERS  
*Assistant Director, Language Laboratory; Assistant to Pine Knoll Cluster Dean*  
Licenza Liceale Classica from Liceo Classico
- JOAN VERRETTE, R.N.  
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- JOAN WALSH, R.D.H.  
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Forsyth Dental School
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Ch.M., A.A.G.O., American Guild of Organists
- LOUIS J. ZUPPARDI  
*Radiology Technologist*  
R.T., R.M.T., Lawrence General Hospital
- LOUISE ZURAWEL, R.N.  
*Assistant Supervisor, Outpatient Department, Isham Infirmary*  
St. Luke's Hospital, New Bedford

## ABBOT ACADEMY EMERITI

- HELEN BEAN JUTHE  
*Instructor in History, Emerita*  
Altamonte Springs, Fla. 1920-1938
- MARY CARPENTER DAKE  
*Instructor in Physical Education, Emerita*  
Green Valley, Ariz. 1925-1945
- M. DOROTHY BAKER  
*Instructor in English, Emerita*  
Bath, England 1945-1950
- DOROTHEA WILKINSON  
*Instructor in English, Emerita*  
Fredericton, N.B., Canada 1939-1953
- MARGUERITE CAPEN HEARSEY  
*Headmistress, Emerita*  
Wellesley, Mass. 1936-1955
- ANNA ROTH  
*Instructor in History, Emerita*  
Franklin, Mass. 1942-1956
- MILDRED A. HATCH  
*Instructor in Latin, Emerita*  
Chester, N.H. 1946-1961
- MARJORIE F. STEVENS  
*Instructor in Mathematics, Emerita*  
Andover, Mass. 1945-1961
- ALICE CURTISS SWEENEY  
*Instructor in English, Emerita*  
Andover, Mass. 1935-1961
- HOPE COOLIDGE  
*Director of Food & Housing, Emerita*  
Concord, Mass. 1938-1962
- RAYMOND COON  
*Instructor in Music, Emeritus*  
Andover, Mass. 1946-1962
- EDITH TEMPLE JONES  
*Instructor in French, Emerita*  
Fairhaven, Vt. 1954-1967
- GERMAINE AROSA  
*Instructor in French, Emerita*  
Essex, Mass. 1945-1969
- GARDNER SUTTON  
*Comptroller, Emeritus*  
Cambridge, Mass. 1947-1971

## PHILLIPS ACADEMY EMERITI

WILCOX HEWITT FAIRFETT DAKE S B  
*Instructor in Chemistry Emeritus*  
Green Valley, Ariz. 1921-1961

MURRAY TURKMAN MALONE PH D  
*Instructor in History Emeritus*  
Daytona Beach, Fla. 1937-1962

ELIZABETH EADES A B  
*Director of the Library Emerita*  
Williamsburg, Va. 1929-1963

ELSA F. ELLIOT BASFORD A B  
*Instructor in English Emerita*  
Catherburg, Md. 1929-1964

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*Instructor in French Emerita*  
Naples, Fla. 1937-1961

JOHN ADOLPH WACE BAKSS A M  
*Instructor in Physics Emeritus*  
Andover, Mass. 1923-1965

ALFRED GRAHAM BALDWIN A B  
B D D D  
*Instructor in Religion and School  
Minister Emeritus*  
Andover, Mass. 1930-1968

CORNELIUS GORDON SCHUYLER  
BANTA S B  
*Instructor in Mathematics Emeritus*  
Winter Park, Fla. 1944-1968

JOHN BROMHAM HAWES Ed M  
*Instructor in English and Assistant  
Dean Emeritus*  
Weston, Vt. 1933-36, 1939-70

MARTINETT HARDING HAYLS JR A B  
*Director of the Addison Gallery of  
American Art and Instructor in  
Art Emerita*  
Andover, Mass. 1933-1960

FREDERICK JOHNSON S B Sc D  
*Director of the Robert S. Peabody  
Foundation and Instructor in  
Anthropology Emerita*  
Andover, Mass. 1936-1960

WALTER CERASCH A B  
*Instructor in English Emerita*  
Facility Grove, Calif. 1941-1970

HONARD FRANK JAMES A M  
*Instructor in History Emeritus*  
Medford, Me. 1932-1970

FRANCIS BERTRAND MCCARTHY A B  
*Instructor in English Emeritus*  
Andover, Mass. 1941-1970

ALSTON HURD CHASE PH D  
*Instructor in Greek, Latin, and  
History Emerita*  
Berwick, Me. 1934-1971

GEORGE KNIGHT SANBORN S B  
*Instructor in Mathematics and  
Biology Emeritus*  
Kennebunkport, Me. 1928-1972

JAMES HOOVER CREW D es I  
*Instructor in French Emeritus*  
North Andover, Mass. 1935-1972

ROBERT WHITTEMORE SIDES A B  
*Director of Admissions and  
Instructor in Mathematics and  
Navigation Emeritus*  
Marblehead, Mass. 1938-1972

RICHARD VALENTINE III ALY P E  
*Director of Physical Plant Emeritus*  
Winchester, Mass. 1956-1972

ALLAN GEORGE GILLINGHAM PH D  
*Instructor in Latin and Greek  
Emeritus*  
Berwick, Me. 1947-1974

ROBERT EDWARD MAYNARD S B  
*Instructor in Mathematics Emeritus*  
Andover, Mass. 1931-1974

WILLIAM RUSSELL BENNETT JR A B  
*Registrar Emeritus*  
Kennebunk, Me. 1950-1974

SIMEON HYDE JR A M  
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Faculty, Associate Headmaster  
Emeritus*  
Albuquerque, N.M. 1950-1974

JAMES RUTHVEN ADRIANCI A B  
*Assistant to the Headmaster and  
Instructor in Religion Emerita*  
Chapel Hill, N.C. 1934-1975

FRANK FREDERICK DICLEMENTE S B  
*Instructor in Physical Education  
Emeritus*  
Andover, Mass. 1935-1975

HART DAY LEAVITT A B  
*Instructor in English Emeritus*  
Andover, Mass. 1936-1975

RICHARD SAWYER PETERS A M  
*Instructor in Mathematics Emerita*  
Providence, R.I. 1938-1975

C. IANE SULLIVAN Ed M  
*Director of Abbot Almonac Affairs  
Emerita*  
North Andover, Mass. 1938-1975

CAROLYN ELIZABETH GOODWIN  
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*Dean of the Academy, Instructor in  
Mathematics Emerita*  
Andover, Mass. 1947-1976

ANNE EISE WITTEN M A  
*Instructor in History and Social  
Sciences Emerita*  
Montreal, Quebec, Canada  
1955-1976

WILLIAM ABBOT MUNROE A B  
*Associate Treasurer Emeritus*  
Andover, Mass. 1960-1976

WILLIAM JOHN BUEHNER M A  
*Instructor in Latin Emeritus*  
Andover, Mass. 1958-1977

HARPER FOLLANSBEE Ed M  
*Instructor in Biology Emeritus*  
Fitzwilliam, N.H. 1940-1977

STEPHEN WHITNEY M A  
*Instructor in French Emeritus*  
Rochester, N.H. 1936-1977

STEPHEN STANLEY SOROTA B S  
*Instructor in Physical Education  
Emeritus*  
Centerville, Mass. 1936-1978

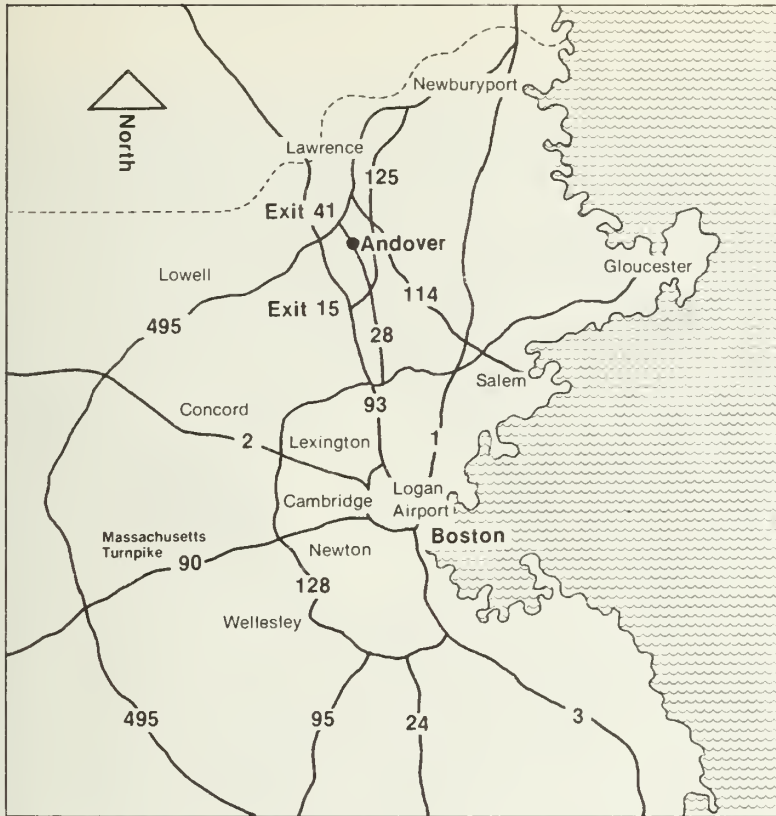
FREDERICK SCOLLIER ALLIS JR  
L H D  
*Instructor in History and the Social  
Sciences Emeritus*  
Boston, Mass. 1936-1970

WILLIAM HAYES BROWN M A  
*Instructor in English Emeritus*  
Bath, Me. 1938-1979

FRANCIS GORDON SOULE M D  
F A C P  
*Medical Director Emeritus*  
Sandwich, Mass. 1970-1979



## TRAVELING TO ANDOVER



If traveling by car from Boston, take Route 93 north for about 19 miles. Take Exit 15, then turn right (east) on Route 125 for 2 miles. Turn right onto Route 28 and go north about 4 miles to the Andover campus. Turn right at the Bell Tower on the corner of Route 28 and Salem Street. The Admissions Office is the first building on the right.

If driving from Logan Airport, follow the signs to Boston via the Sumner Tunnel and follow Route 93 north signs.

From Route 495 north or south take the exit marked Andover and proceed south on Route 28 through the town of Andover. The Phillips Academy campus is approximately one mile south of the Andover center. Turn left on Salem Street, by the Bell Tower.

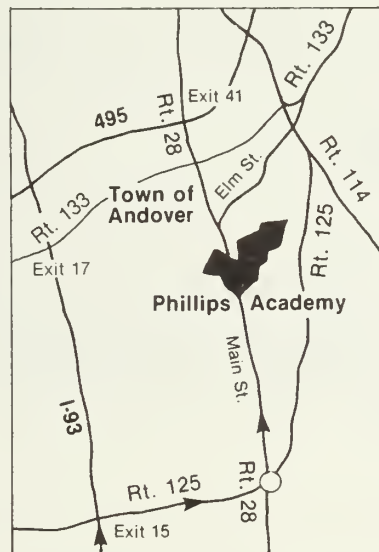
The Trombly Motor Coach Service runs buses to Andover from the Continental Trailways Bus Terminal, 10 Park Square, Boston. Buses run approximately every hour, 7:30 a.m.-11:00 p.m., Monday through Saturday, and from 10:30 a.m. to 11:00 p.m. on Sunday. Visitors should call the bus terminal in Boston, 482-6220, for up-to-date information.

### Inns and Motels in the Area

**Andover Inn**  
Chapel Avenue, Andover  
Telephone 617/475-5903

**Sheraton Rolling Green Motor Inn**  
Lowell Street, Andover  
Telephone 617/475-5400

**Merrimack Valley Motor Inn**  
Route 125, Chickering Road  
North Andover  
Telephone 617/688-1851





ANDOVER

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1981-82

**Andover**  
**Course of Study**

PHILLIPS ACADEMY





# Course of Study 1981-1982

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## Course of Study

The curriculum of Phillips Academy comprises a required core of studies believed to be fundamental to a liberal education and elective courses designed to fit the special needs and interests of the individual student. Placement in the year-level of a subject may be independent of a student's grade in school; through advanced placement at entrance or accelerated courses, many students fulfill requirements ahead of the normal year, thereby gaining increased opportunity for college-level or other elective courses. Instruction is given in all subjects usually required for entrance to higher institutions.

Classroom groups are small enough to permit individual attention, and students are placed in sections fitted to their skill level. Accelerated sequences and advanced courses offer particularly able and well-prepared students opportunity to progress at a rate commensurate with their ability and ambition. Most departments offer courses beyond the level of preparation for college.

For full membership in a given class, students should have credit for the work of the lower classes or its equivalent. However, students are rated as members of a given class if their deficiencies for full membership in it do not exceed a certain number of trimester courses.

Every student is assigned to an Academic Advisor, who helps in the selection of courses that will meet Andover's diploma requirements, college entrance requirements, and the student's particular interests. Students should familiarize themselves with the Academy's basic curriculum—both its requirements and its flexibility.

Members of the Upper Middle and Senior classes should become aware of the entrance requirements of the colleges they may wish to enter.

### The Trimester Plan

The academic year is separated into three trimesters. There are two types of weekly class schedules: one during which classes meet only Monday through Friday, and the other during which classes also meet on Saturday morning. There are roughly equal numbers of these five and six-day weeks in each trimester. Within a given week classes are scheduled to meet ac-

cording to varying patterns: some for four fifty-minute periods; others for five such periods; and a few seminar and studio courses for two two-hour blocks. Many departments offer year-long courses as well as those which are term-contained (completed in one trimester). The diploma requirements are stated in terms of full-year courses or trimester courses, depending on the academic area involved.

### Special Courses in Foreign Languages

Special courses covering the work of two years in one are open to qualified Seniors in German, Greek, Italian, Latin, Russian, and Spanish. These 10-20 courses are designed primarily for students of proven linguistic ability wishing to begin a second or third language in their Senior year, and therefore are not recommended for students of limited language ability. Entering Seniors with no previous foreign language experience must pass a 10-20 course as a diploma requirement.

### Accelerated Sequences and Advanced Placement

The Andover curriculum offers accelerated sequences in most departments. It provides special programs in Latin, Greek, and the modern foreign languages, designed to cover four years' work in three—or five years' work in four. The programs are open, on invitation of the departments, to especially able and ambitious students.

A large number of Phillips Academy students take College Board Advanced Placement Tests in May to establish advanced placement in college courses or credit toward the college degree.

Advanced Placement Examinations are offered in: American History, Art History, Chemistry, English, European History, French, German, Latin, Mathematics, Music, Physics, Spanish, and Studio Art (portfolio).

### Independent Projects

With the approval of the Dean of Studies and in accordance with requirements established by the Faculty, a student may substitute independent work for some portion of the normal course load. An independent project may replace a given course for up to



three trimesters of a student's stay at the Academy, or may replace all courses during a given trimester. In either case, the work is done under the supervision of a member of the Faculty.

### Off-Campus Programs and Projects

The school offers several off-campus residential programs. The *Washington Intern Program*, in which Andover joins with Exeter, allows a group of Upper Middlers and Seniors to spend the Spring Term living together in Washington and working in the offices of U.S. Senators and Congressmen. (See *History* 35.)

Students enrolled in Spanish at the third level or higher may elect a residential Winter Term of study in Mexico. (See *Spanish* 35.)

Selected students of French may spend the Winter term in Antibes, France, attending local schools and residing with a family in the city.

In addition to school-sponsored programs, the trimester plan provides an opportunity for individual Seniors to arrange off-campus projects related to their special interests. Some Seniors have worked as interns with officials in local government and members of the Massachusetts legislature. Others have carried out projects in the arts under the supervision of professionals outside the faculty. Development of such projects depends upon individual initiative in the investigation of opportunities and careful planning of a course of study that will meet diploma requirements and also free a block of time during the appropriate term.

### School Year Abroad

Students may elect to spend their Upper Middle or Senior Year studying in France or Spain with *School Year Abroad*, originated as an off-campus program by Andover, later joined as a sponsor by Exeter and St. Paul's. Students live with host families while pursuing a course of study under the supervision of teachers from the three original sponsoring schools. Although *School Year Abroad* is now an independent program, it provides students with courses that earn full academic credit at Andover and with the experience of immersion in a foreign culture. Students wishing to participate should consult their Academic Advisor and the *School Year Abroad* office (located in Samuel Phillips Hall on the Phillips Academy campus) for guidance in the selection of courses for the years prior to and following the year abroad.

### Summer Session

The *Andover Summer Session* is a six-week academic enrichment program for boys and girls of high school age. Students who wish to receive Phillips Academy credit for courses taken at the *Andover Summer Session* must receive prior approval from the chairman of the department involved.

### Short Term Institutes

The *Andover Short Term Institutes* provide an opportunity for students and teachers from secondary day schools to study one subject intensively during several weeks at Andover. Diploma candidates at Phillips Academy may apply for *Short Term Institutes*, provided that they are able to make individual arrangements for credit through the Dean of Studies.

### Complementary Schools Project

The *Complementary Schools Project* sponsors a wide variety of off-campus community internships available to Phillips Academy students in good standing. Students who wish to participate in a community internship in another school should apply to the Director of the CSP, after having secured credit arrangements with the Dean of Studies and approval from parents, Cluster Dean, and House Counselor.

## Planning a Program of Studies at Andover

The following is designed to help Andover students and their parents to understand the curriculum, and to show the major decisions, and their consequences, which face students at each stage of the four-year academic program.

### Workload

All new students are advised to carry only a normal program of five courses each term in the Junior, Lower Middle, and Upper Middle years. The requirement for the Senior year is four courses or the equivalent of the fourth course—that is, independent work equivalent to a course. Upper Middlers and Seniors may elect to adjust their workload by carry-

ing four courses or five courses in any trimester during their last two years as long as the total for the two years comes to twenty-seven trimester units.

### Academic Advising

Each student has an Academic Advisor; this member of the Faculty is responsible for counseling the student in the planning of his or her course of study at Andover. The Advisor meets with the student during the Orientation period prior to the opening of school in September to review the course selections which the student has made during the previous Summer or Spring. The Advisor must approve the selections for the Fall Trimester at this time, and those for the Winter and Spring Trimesters, respectively, during conferences held later in the year.

Within the diploma requirements, programs of study are determined by the student's long-range needs and aspirations—insofar as these can be identified. These needs may include college and career plans, strengths and weaknesses as revealed by previous performance and aptitude tests, and character and personal development.

In addition to the Academic Advisor, the House Counselor or Day Student Counselor must also approve the student's course selection for each trimester. From time to time during the academic year, the Counselor will report to parents concerning the student's growth and progress. Late each spring students in the three lower classes and their respective Academic Advisors will prepare a selection of courses for the coming year; a copy of this selection will be mailed to parents in June.

Although the student is ultimately responsible for the selection of his courses, the Academic Advisor will welcome any information and suggestions that parents may wish to offer.

### Arena Day

Students register for their courses and selections in an arena setting before each term. Following meetings with their Academic Advisors, students make certain that the desired courses have sections scheduled that permit a conflict-free, workable daily program. Entrance into the arena is by classes and in numerical order according to a randomly chosen, pre-assigned number. Students are advised to have alternate selections in mind in the event that some of the desired

sections are full; enrollment is on a first-come, first-served basis.

### Diploma Requirements

The basic diploma requirement is the satisfactory completion of a four-year secondary school program, of which at least three trimesters must be at Andover; the student must be in good standing (not on Probation or under Suspension) at the time of graduation. A student who has been dismissed is ineligible for a diploma unless readmitted.

A student's program normally includes nine trimester units of a foreign language, eight of mathematics, three trimester units of United States History, plus an additional trimester course in history taken at the Upper Middle or Senior level, a full-year course in a laboratory science, one trimester of art (usually *Visual Studies-Art 10*), one trimester of music (usually *The Nature of Music-Music 20*), and six trimesters of English, these to include a year-long course of competence in writing and reading and a three-trimester sequence of general literature. In order to be eligible for a diploma all students must satisfy the swim requirement of the Department of Athletics. Certain diploma requirements vary with the class level at which the student enters Phillips Academy. Entering Juniors and Lower Middlers must take a trimester course in physical education in addition to required athletics. Entering Upper Middlers need take only one trimester of either art or music at the Academy. Entering Seniors are not required to take either art or music. Some modifications of the language requirement are made for entering Upper Middlers and Seniors. Entering Seniors with no previous foreign language experience must pass a 10-20 course in a foreign language. A Senior must pass a minimum of twelve graded trimester courses during the Senior year. Seniors must have passing trimester grades for all courses taken during their Spring Trimester. Independent Projects are counted as graded courses.

Credits (trimester units) required for diploma are:

For Entering Juniors	54
For Entering Lowers	51
For Entering Uppers	48
For Entering Seniors	48

### Newly Admitted Students

Students entering for their first year are sent place-

ment material, including some forms for present teachers to complete and a self-administered diagnostic test in elementary algebra. These items are used by the Academy to aid in proper placement or recommendation of course levels. New students are also asked to complete to the best of their ability a Course Selection form, indicating the courses that they wish to take during the coming year. Although the placement material may alter somewhat a student's preliminary selections, it is helpful, for planning purposes, to know the levels that each student thinks he is ready to enter.

### The Main Choices at Each Stage of a Four-Year Program

While a student's program of studies is adapted each year to his changing situation, the *future consequences* of each course should be noted, for certain choices in one year open the way to later options and may close the door to others.

### JUNIOR YEAR

Each trimester a Junior must take five courses, only one of which may be a Pass/Fail course. Students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring.

In selecting courses, students are reminded to check the diploma requirements. A Junior's program should resemble the following outline:

1. Math—begin sequence (usually *Mathematics 10*);
2. Foreign Language—begin sequence (usually a year-long course at the 10-level);
3. English—*English 10* (elective);
4. Elective [ Art, Social Science, History, another Math, another Language, Music, Physical Education, RelPhil, Science, Interdisciplinary, Theatre, Dance. ]
5. Elective [ Art, Social Science, History, another Math, another Language, Music, Physical Education, RelPhil, Science, Interdisciplinary, Theatre, Dance. ]

### LOWER MIDDLE YEAR

Each trimester a Lower Middler must take five courses, only one of which may be a Pass/Fail course. New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. A few students take the CEEB Achievement Tests during their Lower

Middle year. In selecting courses, students are reminded to check the diploma requirements. A Lower's program should resemble the following outline:

#### New Students

1. Math—(usually *Mathematics 19* or *Mathematics 20*);
2. Foreign Language—enter the sequence by placement of the department;
3. English—begin sequence (*Competence*);
4. Elective [ Art, Classics, History, another Math, another Language, Music, Physical Education, RelPhil, Science, Interdisciplinary, Theatre, Dance. ]
5. Elective [ Art, Classics, History, another Math, another Language, Music, Physical Education, RelPhil, Science, Interdisciplinary, Theatre, Dance. ]

#### Returning Students

1. Math—continue the sequence (usually *Mathematics 20 (T2), 32*);
2. Foreign Language—continue the sequence;
3. English—begin sequence (*Competence*);
4. Elective [ Art, Classics, History, another Math, another Language, Music, RelPhil, Science, Interdisciplinary, Theatre, Dance. ]
5. Elective [ Art, Classics, History, another Math, another Language, Music, RelPhil, Science, Interdisciplinary, Theatre, Dance. ]

#### N.B.

Students planning to be off-campus for a term (e.g., *Term in Mexico, Washington Intern Program*, etc.) should make sure they have no year-long courses during that year. Students wishing to participate in the *School Year Abroad Program* during their Upper Middle year should discuss these plans with their Academic Advisor and seek guidance for the selection of courses for the Lower Middle Year.

### UPPER MIDDLE YEAR

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 units in blocks of four or five courses per trimester. A Pass/Fail course may be elected as a fifth course only.

New students may have their placement adjusted as a result of the placement exam or questionnaire sent to them in the Spring. Many students take the CEEB Preliminary Scholastic Aptitude Tests in the Fall; all take the CEEB Scholastic Aptitude Tests in the Winter; and many take the CEEB Achievement Tests in the Spring of their Upper Middle year. Some also take the CEEB Advanced Placement Tests in the Spring of their Upper Middle Year. As a matter of



general policy Academic Advisors encourage "depth" in the selection of courses for the Upper Middle Year. Most students satisfy their United States History requirement during their Upper Year. In selecting courses students are reminded to check the diploma requirements. An Upper's program should resemble the following outline:

#### New Students

1. Math—(usually *Mathematics 30, 31, or 35*);
2. Foreign Language—enter the sequence by placement of the department;
3. English—begin sequence (*Competence*);
4. Elective [Archaeology, Art, Classics, another English, History, another Math, another Language, Music, RelPhil, Science, Interdisciplinary, Psychology, Theatre, Dance.]
5. Elective [Archaeology, Art, Classics, another English, History, another Math, another Language, Music, RelPhil, Science, Interdisciplinary, Psychology, Theatre, Dance.]

#### Returning Students

1. Math—continue the sequence (usually *Mathematics 35 (T2)*);
2. Foreign Language—continue the sequence;
3. English—continue the sequence (usually *Lit B (T2), Lit C*);
4. History—usually *History 35 (T2), 36 (The United States)*;
5. Elective [Archaeology, Art, Classics, another English, History, another Math, another Language, Music, RelPhil, Science, Interdisciplinary, Psychology, Theatre, Dance.]

#### N.B.

Students wishing to take an *Off-Campus Independent Project* for a trimester of their Senior Year must have no year-long courses during their Senior Year.

#### SENIOR YEAR

During the Upper Middle Year and the Senior Year, a student must accumulate a total of 27 trimester units in blocks of four or five courses per trimester. A Pass/Fail course may be elected only as a fifth course; however, an Independent Project, though marked on a Pass/Fail basis, is counted as a graded course.

A Senior must *pass* a minimum of twelve graded trimester courses during the Senior Year. Seniors must have passing trimester grades for all courses taken during their Spring Trimester. Many Seniors retake the CEEB Scholastic Aptitude Tests in Decem-

ber and the CEEB Achievement Tests in January, and the CEEB Advanced Placement Tests in May. In selecting courses students are reminded to check the diploma requirements. A Senior's program should resemble the following outline:

#### New Students

1. Math—enter the sequence by placement of the department, if the requirement is not yet satisfied (usually *Mathematics 40*);
2. Foreign Language—enter the sequence by placement of the department if the requirement is not yet satisfied;
3. English—usually *English 300-123*;
4. Elective [Archaeology, Art, Classics, another English, History, another Math, a 10-20 Language, Music, RelPhil, Science, Interdisciplinary, Psychology, Theater, Dance.]
5. Elective [Archaeology, Art, Classics, another English, History, another Math, a 10-20 Language, Music, RelPhil, Science, Interdisciplinary, Psychology, Theater, Dance.]

#### Returning Students

Usually most diploma requirements are satisfied. Careful selection of electives for continued depth in the student's chosen areas is encouraged.

#### Transferring and Dropping Courses

To transfer or drop a course, a student must obtain an official transfer slip from his or her Academic Advisor. This slip is then taken *as soon as possible* to the Scheduling Officer in George Washington Hall. Transfers into term-contained courses must take place during the first six calendar class days of the term. No course may be dropped after the end of the fourth week of classes of any term. Students wishing to drop year-long or T2 courses prior to the normal end of the course may do so only by gaining the approval of a group of five: the Department Chairman, the Dean of Studies, the student's House Counselor, Academic Advisor, and Instructor. Credit is granted at the discretion of the Department Chairman and only if the student is passing the course at the time it is dropped and only for that portion completed. Year-long and T2 courses are considered as long-term commitments.

#### Attendance

Students are expected to attend all academic classes.

Instructors, if approached in advance, are permitted (but not required) to excuse students from a class meeting if the absence from that meeting will not add

to weekend time. Only Cluster Deans may give permission to extend weekend time, and they may do so without consulting Instructors.

### Failed Courses

In most cases, continuing students may attempt to receive credit for a failed course by taking a make-up examination. Spring Term Senior Failures may be made up only following Commencement.

### College Entrance Examination Board Test Dates

Tests will be held on campus in 1981-82 as follows:

October 27	PSAT/NMSQT ( <i>Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test</i> )
November 7	SAT/ACH
December 5	SAT/ACH
January 23	SAT/ACH
May 1	SAT/ACH
May 17-21	AP ( <i>Advanced Placement Examinations</i> )

## Key to Course Designation

A course number ending in "0" denotes a year-long course (Example: *Math 10-0*). A number ending "123" indicates that the course is term-contained, but sequential, and may be taken for one, two, or three terms (Example: *Art 21-123*). A number ending in a single digit "1", "2", or "3" indicates a course that is term-contained, but one that may be taken only once (Example: *History 422-2*). The designations 1, 2, and 3 indicate the trimesters during which the course is offered: 1 = Fall; 2 = Winter; 3 = Spring. Some courses require a two-term commitment; they are indicated by a "(T2)" following the course name (Example: *Physics 52-12 Advanced Physics (T2)*). Check carefully each course description for any other limitations: Prerequisites, permission of instructor or department chairman required, etc.

Immediately below each course number is a 4-digit number in parentheses. This identification number (often referred to as the "computer number") is used for data processing files and is required when a student registers for courses. The final digit of the computer number has roughly the same meaning as the last digit of the course number:

Final Digit:	Indicates:
0	Year-long course
1	Course offered in Fall Trimester
2	Course offered in Winter Trimester
3	Course offered in Spring Trimester
4	T2 course offered in Fall and Winter
5	T2 course offered in Winter and Spring

## Course Descriptions

### Archaeology

The staff of the Robert S. Peabody Foundation for Archaeology offers a term-contained course as an elective

#### 25-3 Archaeology

(2253) Four prepared classes. Open to Upper Middlers and Seniors. Limit 15 students. The course explores the methods archaeologists use to reconstruct prehistoric societies and to test general statements concerning how and why these societies came to be the way they were. In doing this, several major transformations in human society are considered, beginning with the society of the earliest men and ending with the first civilizations. Lecture and class discussions are supplemented by visual aids and work with archaeological specimens. A brief excavation may be conducted locally. (Dr. Wheeler)

### Art

The diploma requirement in Art is as follows: entering Juniors and Lowers must take a trimester course in a Studio Art; an entering Upper must take a trimester course in a Studio Art or Music at the Academy; neither a Pass/Fail course nor an Art History Course is accepted as fulfilling the requirement. The basic course, *Visual Studies*, covers a broad range of material, is open to students of all abilities and experience, and is a prerequisite to almost all elective courses in Art. Exemption from this prerequisite is granted only on the basis of a portfolio of work judged satisfactory by the Chairman of the Department in collaboration with the teacher of the course which the student desires to enter. An acceptable portfolio should contain examples of two-dimensional work, three-dimensional work (slides or photographs are acceptable), and photography.

The College Entrance Examination Board offers students the opportunity to gain Advanced Placement in Studio Art in many colleges and Art Schools, thus enabling a student to by-pass basic design courses. Students must submit a portfolio of slides and original work to Princeton in May. Students interested in Advanced Placement should enroll in

*Art 315-1* and two subsequent terms in Art.

Students wishing to apply for an independent project in photography will not be eligible until they have taken *Art 12*, *Art 26*, and two terms of *Art 306*.

With the exception of *Art 40* and *41*, no Art course, if failed, can be made up by examination.

Students should expect to help pay for art materials.

#### INTRODUCTORY STUDIO COURSES

##### 10-1 Visual Studies

(0101) Five prepared class periods. In its emphasis on observation, interpretation, and organization, the basic course is designed to supply an understanding of contemporary surroundings. (0102) Along with discussion of design problems, the student receives experience in photography, drawing, two-dimensional design, and three-dimensional construction. Previous experience in art is not required.

##### 11-0 Art for Juniors

(0110) Four prepared periods. The course will cover drawing, color, photography, and an intensive exposure to the Addison Gallery of American Art. The course will fulfill the diploma requirement in art and will serve as the equivalent of *Art 10* as a prerequisite for other Art courses. An elective course for students who would like to combine a studio experience with an introduction to the gallery.

##### 12-1 Introductory Photography

(0121) Prerequisite: *Visual Studies*. An introduction to basic out-of-doors photography, the course covers fundamentals of exposure, developing and printmaking. A camera (35 mm. or 2 1/4) with manually controlled speed, aperture and focus is required; a light meter is not necessary. (0122) Emphasis is on both darkroom technique and aesthetic quality. This course may be bypassed by students with previous experience through the presentation of a portfolio.

##### 14-1 Introductory Ceramics

(0141) Four classes per week plus an evening studio. (0142) Limit of ten students. Basic techniques of hand-building, wheel-throwing, and glazing. (0143) Emphasis on the sculptural as well as the functional possibilities of clay. At least one raku firing each term, or a similar special project. No prerequisites, and does not fulfill the diploma requirement.



## INTERMEDIATE STUDIO COURSES

Unless otherwise noted, the intermediate courses consist of four prepared classes each week. *Visual Studies (Art 10)* is a prerequisite for all intermediate courses.

### 20—123 Drawing

(0201) **Prerequisite:** *Visual Studies (Art 10)*. A course designed to develop observation and drawing skills in several media, based on the assumption that drawing is an end in itself as well as a skill basic to other media. Included: one life-drawing session each week.

### 21—123 Animation

(0211) **Prerequisite:** *Visual Studies (Art 10)*. An introduction to the art of illusion of motion through shooting still images frame by frame with 16mm sound motion picture film, with emphasis on the relationship to the sound track in structuring the finished product. Given in collaboration with the Music Department, the course may interest either the art student who wishes to explore the visual possibilities of the medium or the music student who wishes to find a vehicle for an original composition. (Mr. McMurray)

### 23—123 Two-Dimensional Design

(0231) **Prerequisite:** *Visual Studies (Art 10)*. The course deals with one's ability to manipulate those elements most associated with the picture plane: color, line, shape, texture, and composition of flat materials. Work includes: 1) color—free studies and collages dealing with the structural and expressive nature of color; 2) drawing—exercises using pencil, pen, and brush, figure and landscape drawing; and 3) figure-ground—expanding the structural and illusionary aspects of figure-ground as an end in itself and as a basis for graphic and advertising design. (Mr. Shertzer)

### 24—1 Three-Dimensional Design

(0241) **Prerequisite:** *Visual Studies (Art 10)*. Wood-working, welding, furniture design, toy-making, sculpture—all these activities share principles of design which can be more broadly applied to architecture, city and regional planning. The course introduces the wood and metal shops via a series of assigned projects, each of which demonstrates a basic set of design principles.

### 25—123 Intermediate Ceramics

(0251) **Prerequisite:** *Visual Studies (Art 10)*. (*Introductory Ceramics (Art 11)* preferred but not required.) The course stresses combining techniques and the development of basic skills

toward new forms. Use of various clays, including porcelain. Participation in glaze preparation and firings.

### 26—123 Intermediate Photography

(0261) **Prerequisite:** *Art 12*. An extension of *Introductory Photography*, the course goes deeper into technical proficiency and aesthetic quality. Technical aspects include metering techniques, black and white filters, exposure and printing contrast controls, various developing styles and darkroom deviations. A camera and light meter are required. The student will be exposed to the works of various photographers so that he may gain a better sense of his own photographic style and identity.

## HISTORY OF ART COURSES

### 40—1 Art History Before the French Revolution

(0401) Four prepared class periods. For Uppers and Seniors. This course traces the visual arts and architecture from the early Priestly Mediterranean cultures to the late Baroque period preceding the French Revolution. Looking at major art historical epochs and problems, the course focuses on the Greek, Medieval and Renaissance styles. (Mr. Bensley)

### 41—2 Art History After the French Revolution

(0412) Four prepared class periods. For Uppers and Seniors. This course concerns major movements in the visual arts and architecture from the French Revolution up to the present day. It may be taken separately, but when taken as a continuation of *Art 40* will prepare students for the Advanced Placement Examination in Art History. (Mr. Bensley)

## ADVANCED STUDIO COURSES

*Visual Studies (Art 10)* is a prerequisite for all advanced courses.

### 300—123 Graphics and Photography

(0701) **Prerequisites:** *Visual Studies (Art 10)* and *Introductory Photography (Art 12)*. Applying photography to graphic arts, particularly through photo-silkscreen. Individual experimentation is emphasized in an attempt to carry the expressive force of photography beyond darkroom techniques. (Mr. McMurray)

### 302—123 Painting

(0721) **Prerequisite:** *Visual Studies (Art 10)*. An introduction to the basic elements and techniques of painting in oils and acrylics. Specific problems



are assigned to study the fundamentals of color, form, composition and space in painting, as well as to encourage the student's individual expression. Class critiques and discussions, slides, reproductions, films and occasional field trips are also part of the course. Previous experience is helpful but not necessary; students are encouraged to sign up for the full year if possible. (Ms. Spatz Rabinowitz)

### 303-2 Filmmaking

(0732) **Prerequisite:** *Visual Studies (Art 10)* and *Introductory Photography (Art 12)*. This course combines viewing theatrical, documentary, and art films for discussion and criticism with the production of individual or group student films in silent super-8. Course work will include developing film ideas, script-writing, shooting, cutting, editing, and class critiques. (Mr. Sheldon)

### 304-123 Advanced Ceramics

(0741) **Prerequisite:** *Visual Studies (Art 10)*. For those who are seriously interested in the total operation from design to execution. Hand-building, wheel-throwing, glazemaking, (and some chemical analysis) responsibility for loading and firing electric gas, raku, and salt kilns. Assigned reading and occasional field trips. (Mrs. Bensley)

### 305-123 Print Shop

(0751) **Prerequisite:** *Visual Studies (Art 10)*. Print-making deals with images developed through successive stages using materials which by their nature create images capable of duplication. Students work in intaglio, relief, and stencil processes, and print both in black and white and in color. Print processes covered include collagraph (plates made with collaged materials adhered to a base), metal plate processes (etching, dry point, and engraving), linoleum and woodcut, and silkscreen. (Ms. Veenema)

### 306 Advanced Photography

**Prerequisites:** *Introductory Photography (Art 12)* and *Intermediate Photography (Art 26)*

306-I-1 Photojournalism. A photograph is a multi-dimensional experience. It can serve to recall persons or events, it can inform, inspire, and raise questions. It is a way of sharing an experience and one's relationship to it. The subject of this course is taking photographs that are deeply and personally felt and which, at the same time, can communicate to a wide audience. The commentary and images of several celebrated photographers will be presented for discussion. Projects will include individual photographs, essays, pic-

ture stories, journals, biographies, etc. While independent work is expected, some assignments will be given. (Mr. Wicks)

306-II-1 Large Format Photography. The special qualities of the large camera open up a new world of

image making which alters the relationship of photographer to subject and creates options different from the smaller formats. View camera swings and tilts, perspective and depth of field control, sheet film processing, advanced metering and exposure methods, and techniques of the fine photographic print are covered. A survey of the aesthetic and stylistic development of photography in the nineteenth and twentieth centuries is taught. Students explore the many possible approaches to their own photography in this historical context. Extensive use is made of the Addison Gallery's collection of original photographs. 4 × 5 cameras are provided. (Mr. Sheldon)

306-III-2 Studio Photography. Concentrating on portraiture and fashion photography, studio strobes are used to achieve controlled lighting.

Utilizing professional models from Boston agencies, the course is an introduction to commercial photography. (Mr. Bensley)

306-IV-2 Photoillustration. Communication of thoughts, feelings, and dreams in an imaginative and personal manner is the main goal of photoillustration.

Through various darkroom techniques and manipulation, along with individual experimentation, an attempt will be made to express personal ideas. Initial projects will be assigned to enhance experimentation and problem-solving, followed by independent work to be presented sequentially in book format. The course includes group critiques and discussion of works by several photographers. (Ms. McCarthy)

### 308-23 Sculpture

(0882) **Prerequisite:** *Visual Studies (Art 10)*. Offers an opportunity to work in practically every material available to the sculptor today, including wood, stone, metal, plastics, plaster, and others. It is therefore possible for students to develop into sculpture concepts discovered in *Visual Studies (Art 10)* or *Three-Dimensional Design (Art 24)* as well as ideas drawn from their own experience. Some outstanding work of recent classes include the "avocado" by Seymour House '73, a thirty-foot welded construction which is now a permanent addition to the Addison Gallery, a standing steel figure by Jamie Morgan '73 which was on display in the Headmaster's Office, and others. Individual criticism is stressed. (Mr. Shertzer)

**309—123 Kinetics**(0891) **Prerequisite:** *Visual Studies (Art 10)*. *Three-*(0892) *Dimensional Design (Art 24)* is recommended.

(0893) A search for the aesthetics of movement.

Individual inventiveness is stressed as students pursue projects directed toward devices that produce implied or real motion. Self-perpetuated problem-solving situations become one of the prime values and objectives of the course. (Mr. McMurray)

**310—123 Architecture**(0901) **Prerequisite:** *Visual Studies (Art 10)*. For Up-

(0902) pers and Seniors. A design course based on

(0903) previous work in *Visual Studies (Art 10)*and/or *Three-Dimensional Design (Art 24)*

which relates the basic elements of surface and volume to the design of shelter, the efficient combination of human functions, and the organization of construction. At least one term involves large-scale projects constructed in the wood-working shop. Examples from recent years include the Search and Rescue climbing tower near Rabbit Pond and the playground at a local elementary school.

**311—3 Contemporary Communications**

(0913) Four prepared class periods. The course examines some of the bases of communication

between and among people. Material includes fiction, non-fiction, poetry, drama, motion pictures, and the visual arts.

**Prerequisites:** Successful completion of a course in art, music, or theatre. The course engages in group projects aimed at public presentation. (Mr. Owen)

**314—1 Calligraphy: The Art of Lettering by Hand**(0941) **Prerequisite:** *Visual Studies (Art 10)*. A course designed to develop basic techniques of fine

hand lettering beginning with Roman capitals and tracing the historical developments of letter construction, integrating form and function. Practical applications can range from simple matter quotations to illuminated manuscript work. (Mrs. Quattlebaum)

**315—1 Advanced Placement in Studio Art**(0951) **Prerequisite:** *Visual Studies (Art 10)*. For Seniors, or for Uppers by permission of the In-

structor. Four prepared class periods, Fall term only, to help students with special interest in art or design prepare a portfolio for Advanced Placement. The course will concentrate on preparing work for the "breadth" category of the AP, but will also entail planning courses or projects to fulfill the sections entitled "quality" and "depth." A student enrolled in this course should plan to take at least one art course or project in Winter and Spring terms.

## The Classics

The foreign language diploma requirement is competence at the third-year level of a modern or ancient language. Such competence in Latin or Greek is usually established by completing the ninth trimester. Able students may fulfill the requirement at the end of the eighth, or even the seventh trimester, by passing a special examination set by the department.

Through the study of Greek and Latin the Department of Classics offers students a direct entry into Greek literature, which is still unsurpassed in excellence, and into Latin, which, as the universal language of church, court, and scholars throughout the formative years of modern Europe, can rightly be termed the mother tongue of Western Civilization, and the surest index to its meaning.

Students have traditionally studied Latin before going on to the study of Greek. However, Greek is equally appropriate as a first language since it is not more difficult than Latin. The Greek alphabet is easily mastered in the first few class meetings, and students quickly discover that the Greek language has poetic and expressive qualities which stimulate the imagination and illuminate man's political and intellectual development.

In addition to language courses, there are survey courses which require no knowledge of Greek and Latin. Through them the Department makes available to all Andover students a broad introduction to Classical civilization: history, literature, mythology, epic, and etymology.

### GREEK COURSES

**10—0 Greek, First Level**

(5010) Five prepared class periods. The course introduces the student directly to the Classical

Greek of Periclean Athens through a series of readings which present not only the vocabulary, forms and syntax of the language but also the thoughts, feelings and actions that exemplify the Greek genius. Though preliminary selections are necessarily simplified, within the first year students are reading excerpts from Plato, Aristophanes, Euripides and Homer. The text is *Reading Greek* (Cambridge), by the Joint Association of Classical Teachers.

**10-20-0 Greek, First and Second Level, Accelerated**

(5020) Five prepared class periods. The course is open to Seniors and Uppers. It covers in one year the essential material of *Greek 10* and *Greek 20*: basic forms and structure, along with ample selected readings from Xenophon and Plato, as an introduction to Greek literature. The text is Chase and Phillips, *A New Introduction to Greek* (Harvard University Press).

**13-1 Introduction to Greek**

(5031) Four prepared class periods. The course is for students whose curiosity for the Greek language and literature has been aroused by their studies in other areas. For students who plan some day to study Russian or German, this course provides an excellent introduction into the intricacies of a highly inflected language. The student is also treated to an inside preview of a literature which, over the centuries, has provided inspiration and models for the literature of the Western World. It is a term-contained course, but students wishing to continue with Greek will have the opportunity to do so.

**20-0 Greek, Second Level**

(5040) Five prepared class periods. The course continues the format of *Greek 10* with further systematic development of reading skills and control of vocabulary, forms and syntax through the medium of more advanced selections from the Greek masterpieces, always with the purpose of understanding the spirit of the people that produced them. The text is the second in the *Reading Greek* series by the Joint Association of Classical Teachers.

**30-0 Greek: Iliad and Odyssey**

(5050) Four prepared class periods. Selected books of the *Iliad* and the *Odyssey* and sometimes a play of Euripides. Students examine the nature of tragedy, heroism and self-discovery. The texts are Benner's *Selections from Homer's Iliad* (Naiburg), and Homer's *Odyssey I-XII* (ed. Stanford) (St. Martin's Press).

**40-123 Greek: Historians, Tragedians, Lyric Poets**

(5061) Four prepared class periods. In the Fall Term ancient concepts of justice and morality are examined through the works of Herodotus and Thucydides. Human tragedy is explored in a play of Sophocles or Euripides in the Winter Term. The Spring Term is devoted to the study of emotion and self-expression in the Greek lyric poets. The texts are Chase and Phillips, *A New Greek Reader* (Harvard University Press), Euripides *Medea* (ed. Elliott) (Oxford), Sophocles *Oedipus Tyrannus* (ed. Jebb) (Cambridge), and Campbell's *Greek Lyric Poetry* (St. Martin's Press).

**LATIN COURSES**

**10-0 Latin, First Level**

(5110) Five prepared class periods. The purpose of the course is to prepare students for general reading in Latin. To that end, thorough training is given in the basic vocabulary, forms and syntax of the language (including all participles, infinitives and subjunctives) along with practice in sight reading. Frequent attention is paid to the relationship of Latin to English. Surveys of Roman history and civilization provide an introduction to 'the grandeur that was Rome'.

**10-20-0 Latin, First and Second Level, Accelerated**

(5120) Five prepared class periods. For Upper Middlers and Seniors. A year-long accelerated introductory course covering two years in one. Texts are the same as those for *Latin 10* and *Latin 20*.

**13-1 Introduction to Latin**

(5141) Four prepared class periods. The course is for students seeking an introduction to the Latin language, or those whose studies in other languages (including English) have aroused their curiosity about the workings of languages (grammar, syntax and vocabulary). It offers special profit and fascination to students of French, Spanish, and Italian, since it illuminates much of what they already know by acquainting them with the mother language. For students who plan some day to study Russian or German it serves as an introduction to the workings of highly inflected languages. It is a term-contained course, but students wishing to continue with Latin will have the opportunity to do so.

**20-0 Selected Latin Prose Authors**

(5150) Five prepared class periods. During the first term, the course gives a thorough review of the fundamentals of Latin grammar and begins the reading of Caesar. Caesar's account of his campaigns provides for the student insight into the problems of political ambition and international intrigue. These ideas are developed and reexamined in additional readings from Nepos and Livy. There is practice in sight translation and prose composition.

**20A-0 Selected Latin Prose Authors**

(5160) Five prepared periods. For new students whose first-year Latin course may have been less complete than *Latin 10*. The course follows the same outline as *Latin 20*, but more slowly.



**30—0 Cicero, Sallust; Vergil's Aeneid, Book II**

(5170) Four prepared class periods. Through the writings of Cicero and a variety of other authors, students learn to read Latin prose with increasing ease. The course presents a picture of Cicero's life and times and compares the political unrest and maneuvering of his time with that of our own. The literary importance of Cicero as the creator of a prose style which had a dominant influence on the literature of Europe for centuries is assessed. In the Spring Term the student is introduced to Roman poetry through readings in Vergil's *Aeneid*. The student will begin to understand how Vergil, as heir to the Homeric tradition, gave to epic and to Western poetry in the generations that followed him their definitive form. The text is Gillingham and Barrett's *Latin: Our Living Heritage, Book III* (Charles Merrill Books).

**30A—0 Cicero; Vergil's Aeneid, Book II**

(5180) Five prepared class periods. The course follows the same outline as *Latin 30*, but begins with a more extensive review of the work covered in the second year. It is intended for new students who have had two years of Latin but little or no experience in reading Caesar.

**40—123 Vergil's Aeneid**

(5191) Four prepared class periods. Through a thoughtful reading of Vergil's *Aeneid*, students are introduced to the great classical traditions of epic poetry. The literary form and beautiful, symbolic content of the *Aeneid* become familiar as the model and inspiration of our western poetical heritage. Homer, as Vergil's well-loved and frequently emulated model, is read in translation; the comparison and contrast of the Homeric tradition with Vergil provide a clear understanding of the Latin author's techniques and purpose.

**50—123 Livy and Tacitus; Roman Comedy; Horace and Catullus**

(5201) and Catullus  
(5202) Four prepared class periods, one unprepared  
(5203) period devoted to sight work. The course includes preparation for the Latin Advanced Placement Examination. In the Fall Term, selections from Livy's *Histories* give students insight into the foundations of some of the Western World's ideas of government and law. Selections from Tacitus' *Annals* are read as a contrast because of their studied depiction of human excess in tyranny and degradation. In the Winter Term, Roman comedy treats students to the bases of European high comedy and farce. In the Spring Term, the students begin to understand the Roman concepts of moderation versus excess through the writings of the poet Horace, described by a Twentieth Century psychiatrist as "a type of the perfectly

integrated personality." The lyric poetry of Catullus reveals the perennial personal emotions found as well in the First Century BC as now.

**CLASSICS COURSES****21—1 Classical Civilization: Greece**

(5321) Four prepared class periods. For Juniors and Lower Middlers. The course surveys the achievements of the ancient Greeks from Homeric times through Alexander the Great, including their impact on later civilizations in such areas as literature, art, philosophy, drama, government and science. The case-study method is employed to enhance skills of analysis, discussion and presenting ideas on paper, and to focus the material on two comprehensive themes: the search for a single unifying explanation of the physical universe, and the conflict between ideal justice and law-court verdicts.

**22—2 Classical Civilization: Rome**

(5332) Four prepared class periods. For Juniors and Lower Middlers. The course introduces students to the civilization of Rome which dominated the Western World politically for a thousand years and culturally for even longer. The developing concepts of politics, law, and empire as we know them today are discussed. The course challenges the student to consider the meaning of the Roman experience in its glorious achievement of the "Roman Peace" as well as in its "Decline and Fall."

*For other courses related to Classics, please see:*

*Under History: Ancient History* (History 410); *Social History of Greece and Rome* (History 411).

*Under Interdisciplinary: Mythology; Etymology; Greek Literature in Translation; Roman Literature in Translation.*



## English

The diploma requirements in English are to establish competence in writing and reading (normally by successful completion of the *Competence Course*), and to complete the *Literature Sequence* through *Literature C*. For those entering Seniors and Post-Graduates who must take *English 300*, the requirement is reduced by the appropriate number of trimesters. (Seniors and Post-Graduates are interviewed by the Department Chairman before the start of school and in some cases these students may be exempted from *English 300* to enroll in one of the 400 or 500 level English courses.) All new Lower and Uppers enroll in *Competence*. Students entering the Junior Class are strongly urged to take the normal Junior course, *English 10*, although they may elect to take no English at all. Juniors may not enroll in *Competence*.

The English Department also offers courses at the following levels: *Language Skills* and *Efficient Reading* for students lacking certain English skills; specialized courses for students who have already passed their competence and literature requirements and elect to continue studying English. Related courses, whose prerequisites vary, are listed elsewhere in this booklet: e.g., under Performing Arts, Interdisciplinary Courses, Classics Courses, and Modern Foreign Language Courses in translation. All English courses meet for four prepared classes a week unless the course description states otherwise.

### 10-0 English

(1100) This course is recommended for all Juniors. As a foundation for the *Literature Sequence*, the course studies a variety of literary forms and styles. Frequent writing assignments and the study of language skills prepare the student for the *Competence* course in the tenth grade.

### 16-23 Language Skills (T2)

(1165) This course is designed for Juniors and Lower who need supplementary help in overcoming weaknesses in writing. Areas of study include a review of basic grammar, sentence and paragraph structure, organizational skills, spelling and vocabulary. Class size will be limited so that specific assignments can be geared to the needs of each student. (Ms. Brown)

*Juniors are also eligible to enroll in Etymology, which is described under Interdisciplinary.*

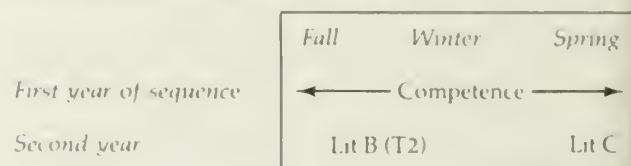
### 17-3 Language Skills

(1173) Seniors and Uppers who need help in writing essays and research papers may elect this course for the Spring Term only. Organizational skills, paragraph and sentence structure, and theme development will be reviewed depending on students' individual needs. Students must have permission of the instructor. (Ms. Brown)

### 18-1 Efficient Reading

(1181) Primarily for Upper Middlers and Seniors. A course for increasing reading speed and comprehension, using the *Harvard Reading Course* with supporting exercises in writing and vocabulary. (Ms. Brown)

### Normal Required Sequence (2 years)



### (1200) Competence Course

The course is designed to teach basic skills in reading and writing. It enables a student to achieve the competence requisite for the literature sequence and the specialized courses. The course is concerned with the recognition and use of the basic elements of a sentence, sentence patterns, punctuation, paragraph development and coherence, and the composition of unified exposition. The first term emphasizes writing paragraphs and short compositions; the second term includes multi-paragraph compositions and the documented report. The third term focuses on close and accurate reading of the short story and the poem and helps students develop the skills necessary to write about these works clearly and concisely. *Competence* also encourages the acquisition of important reading skills in conjunction with the study of writing. Passages composed by skillful writers are evaluated for organization, logic, point of view, tone, diction, transitional devices. Through the use of the summary sentence, the outline, and the summary paragraph, a student learns to reduce a passage to core ideas. Texts: *English Competence Handbook: Prose Models*, ed. Levin; *50 Great Short Stories*, ed. Crane; *Sound and Sense*, ed. Perrine.

### LITERATURE SEQUENCE

Lit B (T2) (a two-term commitment)

Lit B continues the shift in emphasis, begun in the third term of *Competence*, away from basic writing training to

reading and writing about literature. Here students will choose a course centered in one of three modes: Comic, Tragic, or Mythic. Though the modes differ, the objectives of *Lit B* are common to all three: to develop the skills of literary analysis; to teach a sense of literary mode; develop a sense of historical perspective; teach the forms of the novel, the poem, the play; develop a literary sensibility; and apply analytical skills to the writing of papers.

(1224) **Lit B-I (The Comic View)**

A study of verse and prose works that illustrate the nature, purposes and techniques of comic writings. Core Texts of 1980-81:

FALL TERM — *Huckleberry Finn*

*Pygmalion* or *Lysistrata*

*Pride and Prejudice*

Comic Poems from Shakespeare to

Nash

WINTER TERM — *Gulliver's Travels*

*Decline and Fall*, *Joseph Andrews* or

*The Annotated Alice in Wonderland*

*The Canterbury Tales*, the prologue and a number of the Tales

(1234) **Lit B-II (The Tragic View)**

This course examines the form and content of a number of works in order to identify and define elements of tragedy that are fundamental to them. The works are arranged in approximate chronological order with a balance being sought in each term among the various genres. Techniques of literary analysis and critical appraisals of the reading are stressed in frequent written assignments. Core Texts:

FALL TERM — *Oedipus Rex*

*Wuthering Heights*

Selected Poetry

WINTER TERM — A Novel by Thomas Hardy

*Heart of Darkness*

*Cane*

Selected Poetry

(1244) **Lit B—III (The Mythic View)**

The course explores mythic elements in a wide variety of works with the aim of developing a student's ability to respond to and write about literature. Core Texts:

FALL TERM — *The Bible* (selections)

*The Odyssey*

*Agamemnon*

Selected Poetry

WINTER TERM — *Moby Dick*

*Invisible Man*

Selected Poetry

(1263) **Lit C**

An introduction to the study of Shakespeare. At least three plays will be read, one being *Hamlet*, with an emphasis upon close textual analysis.

**SPECIALIZED COURSES**

Specialized Courses are open to students who have successfully completed *Competence*, *Literature B* and *C*. Courses numbered in the 500s are more intensive and demanding than those numbered in the 300s and 400s. Each course has four prepared class periods a week, unless specifically stated otherwise. Only courses with sufficient enrollment will be given.

**300—12 English**

(1301) A special course for all post-graduates and

(1302) one-year Seniors. Its purpose is to provide the

writing and reading skills taught in *Competence* as well as to expose students to substantial works of literature. While reading plays, poetry, short stories, or novels, students undertake intensive writing exercises and learn to write effective papers of greater length. (Mr. Bernieri, Dr. Germain, Mr. Owen, Mr. Stephens)

**401—1 Non-Fiction Writing**

(1711) In this course writers will gain practice in these

non-fiction modes: personal essay, analysis, argument, feature writing, and extended composition. There are daily writing assignments; class work focuses on student editing. The instructors assume that students entering the course write with grammatical and rhetorical competence. Students are encouraged to submit their work for publication in newspapers and magazines. (Mr. Kalkstein)

**403—123 Introduction to Writing**

(1731) An introductory course to the writing of

(1732) original stories, informal essays, and poetry.

(1733) After examining examples of the genres mentioned, the student tries his hand at one or

more of these forms. With written permission from the department chairman, a student may take this course before he has completed the normal Competence-Literature sequence. (Mr. Owen, Mr. Cobb)

**404—1 Hemingway and Fitzgerald**

(1741) A consideration of two modern literary con-

temporaries who captured their eras with equal success, but whose prose styles and temperaments made them unlikely compatriots.

Short stories and novels by both authors will be read. (Mr. Bernieri, Mr. Sykes)

405—23 Black Literature

(1782) The theme and content of this course will vary each term. The first term's theme is "Toward the Promised Land": a consideration of several African American authors' depiction of their people's migration from the South to the North and the frustrations of the dream deferred. Works by Ellison, Baldwin, Wright, Hughes, McKay, and Toomer are read. (Mr. Sykes)

408—123 American Writers of the Twentieth Century  
(1781) A thematic and comparative study of the novel  
(1782) and drama in America from 1900 to the present. Representative authors are Wolfe,  
(1783) O'Neill, Fitzgerald, Dos Passos, Hemingway, Williams, Faulkner, West, Styron, and Agee. (Ms. Harper, Mr. Cobb)

500—23 James Joyce

(1802) The first term is devoted to *Dubliners*, *A Portrait of the Artist*, and *Stephen Hero*, and Ellmann's *James Joyce*; the second to *Ulysses* and *Finnegans Wake* in part. The purpose of the course is to follow the development of Joyce's method and style and to develop the skill to read important and difficult works without the aid of study guides and other secondary material beyond the Ellmann. Although the course may be taken in either term, the student gains a better sense of Joyce's genius by enrolling for two terms. (Dr. Germain)

502—12 Irish Literature

(1821) The course will begin with a brief examination  
(1822) of Irish history and Celtic mythology in order to broaden our appreciation and understanding of the four major writers of the Irish Renaissance: Yeats, Joyce, Synge, and O'Casey. Throughout the term we will try to draw connections between Irish politics and literature, both during the Literary Revival and today, in Northern Ireland where the troubles persist. (Ms. Bussiere)

504—123 Man and God

(1841) The course considers man's search for meaning in what frequently seems to be an inexplicable world. Readings include: *King Lear*, Shakespeare; *As I Lay Dying*, Faulkner; *Long Day's Journey into Night*, O'Neill; *J.B.*, MacLeish; *The Fixer*, Malamud; *Crime and Punishment*, Dostoevski; *The Trial*, Kafka; *Wise Blood*, O'Connor; *Nine Stories*, Salinger; *The Birthday Party*, Pinter; *The Cocktail Party*, Eliot; *Zorba the Greek*, Kazantzakis; *The Bluest Eye*, Morrison. (Miss St. Pierre)

508—23 Directions in 20th Century Drama

(1882) The close study of significant contemporary drama, specifically Ibsen's *Ghosts*, O'Neill's *The Iceman Cometh*, Williams' *Streetcar Named Desire*, Bolt's *A Man for All Seasons*, Osborne's *Look Back in Anger*, Beckett's *Waiting for Godot*, Pinter's *The Homecoming*, Ionesco's *The Lesson*, Albee's *Who's Afraid of Virginia Woolf?*, and Stoppard's *Rosencrantz and Guildenstern Are Dead*. (Ms. Braverman, Mr. Owen)

509—1 Shakespeare: The Man, The Times, The Theatre, The Plays

409—3 The course focuses on six plays (representative histories, tragedies, and comedies), the sonnets, as well as some biographical and historical readings. (Mr. Stableford)

510—123 The Short Novel

(1901) An examination of the novella, the genre of the  
(1902) short novel, with concentration on some fifteen works of comparative literature, including, Chekov's *Ward No. 6*; Mann's *Death in Venice*; Lawrence's *The Fox*; Tolstoy's *The Kreutzer Sonata*; James' *The Beast in the Jungle*; Stendhal's *The Red Chamber*; Greene's *The Third Man*; Melville's *Billy Budd*; Stevenson's *Dr. Jekyll and Mr. Hyde*. (Dr. Theroux)

512—123 Satire and Comedy

(1921) A study of both the theories and practice of  
(1922) satire and comedy, with emphases on the eighteenth century and the modern period. Works by authors like Pope, Swift, Sterne, Ben Jonson, Waugh, and Heller will be studied in conjunction with the visual art of Hogarth and Steinberg, and recordings of modern performers like Cohen and Sahl. (Mr. Regan)

513—123 Novel & Drama Seminar

(1931) The course concentrates on major works of literature since 1880, primarily on the works of  
(1932) Virginia Woolf, Henry James, David Storey, Franz Kafka, Flannery O'Connor, T.S. Eliot, Samuel Beckett, Eugene O'Neill, William Faulkner, Gunter Grass, Saul Bellow, Gabriel Garcia Marquez, Grace Paley, John Barth, Isaac Bashevis Singer, Elie Wiesel, Harold Pinter, Christina Stead, and Vladimir Nabokov. Students study the "world" of each writer and compare it with that of the others. As a basis for the comparison with the classics of the past, they also study a Greek Tragedy and *The Brothers Karamazov*. Class periods are devoted to seminar discussions (often led by students) and critiques of student writing. Students regularly stage dramatic readings, cast and performed by the class. (Mr. Wise)



**514—123 Creative Writing**

- (1941) A writing course in poetry, short fiction and drama. Content and emphasis shall be determined by each instructor. Fall: Introduction to creative forms; Winter: Poetry, Short Fiction; Spring: Poetry, Short Fiction, Drama. (Mr. Lopes, Dr. Theroux)

**515—123 Literature of the Quest**

- (1951) Four prepared class periods. Open to Seniors.  
 (1952) Focusing on the ancient pattern of the journey, the thresholds crossed and the vision obtained, the course asks students to interpret elements of the quest from a variety of perspectives. In the Fall Term readings include Socrates' *Euthyphro*, *Oedipus Rex*, the Abraham cycle, Castaneda's *Journey to Ixtlan* and Eliot's *The Waste Land*. The Winter Term considers the suffering encountered on the quest and explores themes from the gospel of Mark, *King Lear*, *The Great Gatsby*, Wiesel's *Night*, West's *Miss Lonelyhearts* and Flannery O'Connor's *Everything That Rises Must Converge*. The Spring Term questions the journey's end, reading the Amor and Psyche myth and *Alice in Wonderland*, comparing Jacob and Jesus and ending with two tragicomedies: *The Tempest* and *Who's Afraid of Virginia Woolf?* (Mr. Zaeder)

**518—3 Milton and Spenser**

- (1963) Students read minor works of both authors as well as Spenser's *The Faerie Queene* (Books I-II) and Milton's *Paradise Lost*. (Mr. Kalkstein)

**520—123 Images of Woman**

- (1971) This course will examine, through the study of  
 (1972) literature, woman as she perceives herself and  
 (1973) as she is perceived by others. It will explore works by both men and women writers and will focus on the constant and the changing image of woman in different literary periods. Readings will include: *Northanger Abbey*, Austen; *Jane Eyre*, Bronte; *Hedda Gabler*, Ibsen; *Measure for Measure*, Shakespeare; *The French Lieutenant's Woman*, Fowles; *The Awakening*, Chopin; *The Mill on the Floss*, Eliot; *The Scarlet Letter*, Hawthorne; *Surfacing*, Atwood; *Sons and Lovers*, Lawrence; *Mrs. Dalloway*, Woolf; *Tell Me a Riddle*, Olsen; *As I Lay Dying*, Faulkner. (Miss St. Pierre, Ms. Harper, Ms. Dobson)

**527—3 Chaucer and His Age**

- (1983) The wit, poetry, and genius of the later Middle Ages and Renaissance, as seen in Chaucer and medieval drama. The focus of the course is a study of *The Canterbury Tales* in Middle English. (Mr. Wilkin)

**528—2 Wit and Poetry in the Seventeenth Century**

- (1992) A study of the several types of concentrated, witty poetry that dominated the early seventeenth century—the schools of Donne, Jonson, Herbert, and Herrick—and of the profound effect that these poets have had on later poets like Hopkins and Eliot. Although the focus of the course is poetry, some of the background material is prose, from Plato to the modern literary critics. (Mr. Zaeder)

*The following Theatre courses, which are related to English studies, have no prerequisites: Theatre 22 (Public Speaking), Theatre 28 (Shakespearean Workshop), and Theatre 53 (Playwriting). These may be found under Performing Arts. Other courses related to English are Art 311 (Contemporary Communications) and a number of literature in translation courses in the Interdisciplinary section.*

## History and the Social Sciences

The diploma requirement for history is successful completion of *United States History* (History 35 (T2) and 36) plus one trimester elective taken in the Upper or Senior year. When appropriate, adjustments are made in the requirement for one-year students.

The History Qualifying Test (H.Q.T.) will be given to all Lower Middlers in the Spring of 1981 and to all entering Upper Middlers, Seniors, Post-Graduates and foreign students during the orientation period in September 1981. The purpose of the test is to place students in the appropriate level of history study. (1) For some, the test results will indicate the student is to take *History 21* in the Fall or Spring terms of 1981-82 and begin the three-term sequence of *History 35* (T2) and 36 in January 1982 or September 1982. Such a program satisfies the four-term requirement. (2) For some students the test results will indicate the student is ready to begin *History 35* (T2) and 36 in September 1981. The student may choose to begin in September 1982. Such a student would also need one 400 level course. We recommend that the student take the 400 level course after having completed two terms of the three-term



35(T2), 36 sequence. *History 35 (T2)* and 36 and a term at the 400 level satisfies the diploma requirement. (3) The results on the H.Q.T. will determine whether students who have had a U.S. History course in the 11th or 12th grade at their previous school should take a term of *History 21* or a term of history at the 400 level to complete the diploma requirement.

One of the courses offered for Juniors and Lower Middlers—*The Emergence of Man*—is designed to introduce the students to a culture different from their own. A second—*Early American Society*—stresses historical topics other than politics prior to the Revolutionary period.

The History Department recommends that during the Lower Middle year each student should take one term of biographical study. The selection should be made from *History 20* and 22. The Department believes that study in one of these courses will not only give the student an introduction to history through the study of great men and women but will also enable him to acquire certain fundamental skills in preparation for upper-level history and social science courses. The Department will emphasize various skills in reading, note-taking, the definition of historical and social science terms, the use of evidence, and the writing of historical essays.

The courses in history offered to Upper Middlers and Seniors are based on the conviction that a knowledge of the past is essential if an individual is to function effectively as a citizen in a modern democracy. The approach is topical; the traditional aim is to train students to handle historical material with discretion and to write essays containing substantive factual support for general statements; the pedagogical techniques are constantly under review.

Multi-disciplinary courses in the social sciences are also available for Upper Middlers and Seniors who wish to study particular societies of the twentieth century.

The essential purpose of all courses is to give the students training in the understanding of domestic and international problems that will serve them well as citizens. It is also hoped that for some students the course may kindle an interest in the study of human society—past and present, that can be a source of pleasure and profit all their lives.

## COURSES IN THE SOCIAL SCIENCES

### 10—1 Anthropology: The Emergence of Man

(2001) Four prepared class periods. Primarily for Juniors. This course concerns itself with the origins and nature of humanness, tracing those developments which make Man the unique animal he is. Among the specific topics covered during the term will be primate behavior, the evolution of culture and language, tool-making, and contemporary hunter-gatherer societies. Emphasis will be placed on both anthropological and archaeological techniques, as well as on reading and writing skills. In addition to readings, use will be made of films and filmstrips, and students will become familiar with fossil casts and artifacts, through the resources of the Peabody Museum of Archaeology.

### 10—2 Anthropology: The Emergence of Society

(2002) Four prepared class periods. Primarily for Juniors. This course traces the development of human society from the primitive Cro-Magnon bands of the Upper Pleistocene through the early river-valley civilizations of the Near East and equivalent New World advances. Specific topics covered during the term will include the origins of food-production, the growth of villages and cities, the advent of writing, the meaning of civilization, the state and the citizen. Emphasis will be placed on both anthropological and archaeological techniques, as well as on reading and writing skills. In addition to readings, use will be made of films and filmstrips, and students will become familiar with artifacts, through the resources of the Peabody Museum of Archaeology.

*Each of the above courses may be taken separately, but students whose schedules permit should consider taking them as a sequence in order to obtain a full understanding of the early development of human beings and society.*

## HISTORY COURSES

### 10—1 Early American Society

(2101) Four prepared periods. For Juniors and Lower Middlers. A topical survey of pre-revolutionary American society, the course is designed to acquaint students with skills in historical exposition. Topics include the family, slavery, commerce and farming, religion and the arts. (Mr. Crawford)

### 20—1 Biography I

(2201) Four prepared class periods. Open to Lower Middlers and selected Juniors. The course deals with the lives of men and women in Europe from the Middle Ages to the eighteenth

century. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperbacks: Eileen Power, *Medieval People*; Conyers Read, *The Tudors*; Robert Heilbroner, *The Worldly Philosophers*. (The Department)

#### 21-1 Biography I

(2211) Four prepared class periods. For Uppers whose

21-3 H.Q.T. scores require a term of preliminary

(2213) history study prior to *History 35 (T2)* and *36*.

The primary difference between *History 21*

and *History 20* is that the readings in *21* are geared to older students and the subject matter is more explicitly related to preparation for *History 35 (T2)* and *36*. As a comparative study of American leaders, the course deals with the lives of men and women who made significant contributions in several fields of endeavor. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, contemporary American eras, and biographers' methodologies are all components of this study. Course materials include several biographies in paperbacks: Charles W. Akers, *Abigail Adams, An American Woman*; Saul K. Padover, *Jefferson*; Robert V. Remini, *Andrew Jackson*. (The Department)

#### 22-2 Biography II

(2222) Four prepared class periods. For Lower Mid-

dlers and a limited number of Juniors. As a comparative study of American leaders, the course deals with the lives of men and women who made significant contributions in several fields of endeavor. Biographies are read and studied to determine what circumstances motivated these leaders, what traits they had, how they responded to varying challenges, and why they are considered great historical figures. Qualities of leadership, psychological explanations, contemporary American eras, and biographers' methodologies are all components of this study. Course materials include selected biographies in paperbacks: *The Autobiography of Frederick Lewis Douglass*; Samuel Eliot Morison, *Christopher Columbus, Mariner*; Ester Forbes, *Paul Revere and the World He Lived In*. (The Department)

#### 34-12 American History for Foreign Students

(2341) Four prepared class periods. A course for stu-

(2342) dents for whom English is a second language and whose H.Q.T. scores indicate they are not

ready for *History 35 (T2)* and *36*. The course will emphasize language skills important to the study of American History, and the subject matter will focus on the founding of the republic, constitution building and how the American Government works, the westward movement, the Civil War and the coming of urban-industrial, multi-ethnic America. The intention of the course is to recognize the special needs of the students and to bring them to a level of achievement so they may transfer to the *35/36* sequence in the winter or spring term, if the students wish to be candidates for the diploma.

35-12 The United States (T2) (a two-term commit-

(2354) ment)

35-23 Four prepared class periods. For Upper Mid-

(2355) dlers and Seniors. This course, along with *His-*

*tory 36* and *History 20* or a *400* level history or social science course, according to placement on the H.Q.T., fulfills the four term history diploma requirement. *History 20* taken as a Lower does not count as one of the four term diploma requirements. The first term emphasizes three goals—a survey knowledge of American history through Reconstruction by reading a text, John A. Garraty's *The American Nation*; the acquisition of skills by daily exercises in reading, note-taking, and writing; and an in-depth study of American federalism through intensive focused readings and writing. The second term emphasizes American Industrialization from the post Civil War years to 1940. The threefold goals of the first term, a survey knowledge, skills, and analytical mastery of an organizing theme, continue; but the variety of readings and writings and the complexity of the materials increases. (The Department)

#### 36-1 The United States

(2361) Four prepared class periods. For Upper Mid-

36-3 dlers and Seniors. The focus is on twentieth

(2363) century America to the present, with an em-

phasis on American foreign policy. In this term the writing of a research paper represents a major part of the work. Prerequisite: successful completion of *History 35 (T2)*.

A student must have completed one trimester of *History 35* or have credit for U.S. History from another school before enrolling in a 400-level course.

Students participating in the Spring 1982 Short Term Institute "An Intensive Look at China" will enroll in *History 401-3*, *History 403-3*, *Chinese 13-3* (see the *Modern Foreign Language* section), and a seminar. All of these courses except the seminar may be taken as individual, term-contained courses.



**401-1 Modern China**

(2411) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to traditional Chinese thought and institutions, the course will concentrate on events since 1800 in China. There will be much emphasis on China's response to the West on economic, intellectual and political developments during the nineteenth and twentieth centuries. Readings will be from philosophy, history and literature. The classes will include both lecture and discussion. (Mrs. Sizer)

**402-2 Modern Japan**

(2422) Four prepared class periods. For Upper Middlers and Seniors. After an introduction to traditional thought and feudal social structure in Japan, the course will move to a closer look at ideas, events and developments since 1800. An attempt will be made to understand the unique way in which Japan responded to the challenge of the West. Readings will be in historical texts, impressions of contemporary observers, sociological descriptions and literature, with a special effort to understand the outstanding features of Japanese culture, politics and economics through analysis and discussion. (Mrs. Sizer)

**403-3 A History of Chinese Culture**

(2433) This course will examine Chinese philosophy, its origins in ancient Taoist, Confucian and Realist writings, and its evolution until modern times. There will be a section on traditional Chinese art, especially bronzes, ceramics and painting, and on art in the Communist era. Several pieces of literature, from early poetry to contemporary stories, will be read and discussed. (Mrs. Sizer)

**406-3 Africa and the World**

(2463) This course will focus on contemporary issues facing the new nations of Africa, based on an historical analysis of the emergence of Africa from the colonial period. Political and economic development of these countries, the relations between developed and developing states, the emergence of majority rule in Southern Africa, and the role of Africa in the United Nations will be studied. Readings will include analyses of the issues African nations confront in the modern world, novels about Africa, and speeches and articles by African statesmen. (Mr. McNemar)

**407-2 The Middle East**

(2472) Four prepared class periods. For Upper Middlers and Seniors. Few if any regions of the world claim a more compelling interest than the Middle

East. From its ancient site of half the earth's cultural antecedents, birthplace of three world religions, landbridge of three continents, eternal East-West corridor, and ceaseless crossroads of conquerors, pilgrims, and tradesmen, the Middle East derives a distinctive character of its own. This course traces the region's emergence from the decline and fall of the Ottoman Empire (the famous "sick man of Europe") to the present day with special attention to such matters as Middle Eastern oil and Arab-Israel relations. A term paper is part of the course's requirement. (Mr. Bunnell)

**409-1 Latin American Studies**

(2491) Four prepared class periods. Open to Upper

**409-2** Middlers and Seniors. This interdisciplinary course offered by the History and Spanish

(2492) departments provides an analysis of Latin

**409-3** American social and political structures through the study of their historical and cultural development. The course will study the relation of these structures to United States policies.

**410-123 Ancient History**

(2501) Four prepared class periods. For Upper Mid-

(2502) dlers and Seniors. The course is concerned

(2503) with Greek and Roman history from the Minoan Period to the beginning of the Medieval Period. Each term represents a coherent and independent unit. In the Fall Term the survey ends with the world empire of Alexander the Great. The Winter Term covers the period from the beginning of Rome until its transition from Republic to Empire. The Spring Term is concerned with Roman Empire and the transition from Roman to Medieval History. (Mr. Krumpe)

**411-1 Social History of Greece and Rome (Not offered in 1981-82.)**

Four prepared class periods. For Upper Middlers and Seniors. After an introduction to the study of social organization (including economic, religious and familial aspects) the course briefly considers the restrictive position of women in classical Greece. We then study Rome and the emergence from a primitive, agricultural background of an urban, enlightened attitude towards women. The complexities of the Empire and the liberal status of women, particularly in economic affairs, conclude the term. (Mrs. Clark)

**412-2 Social History of the Middle Ages (Not offered in 1981-82.)**

Four prepared class periods. For Upper Middlers and Seniors. The course starts with the reshaping of Roman

laws and customs by the rapidly emerging Christian doctrine; these in turn are changed by the invasions of the Germanic peoples. Charlemagne serves as the prime illustration of this medieval combination of attitudes. As Europe moved into the Renaissance, humanism and rationalism dignified woman as the 'Lady' of courtly love; at the same time the fear of woman as the 'witch' haunted Europe. (Mrs. Clark)

#### 420—0 Modern Europe: A Survey

(2600) Four prepared class periods. Open to Upper Middlers and Seniors. The Fall term consists of a background survey of the 16th, 17th, and 18th centuries, with particular emphasis on the political, economic, and intellectual revolutions that helped to mold the modern world. The focus of the Winter Term is the period 1800-1900, with continuing attention given to the shaping of modern thought, the emergence of the nation-state, and the effects of industrialism. In the Spring Term, the course covers topics in 20th century Europe; the two World Wars, and their effect; the nature of totalitarianism; the cold war and the rise of the superpowers.

Reading is from primary and secondary sources, as well as fiction. Visual materials are used where appropriate. This course has proven to be a good preparation for the Advanced Placement Examination in European History. (Mr. Richards)

#### 422—2 Tudor England

(2622) Four prepared class periods. Primarily for Seniors. The years when England was ruled by the Tudor family were some of the most colorful and pivotal in English history. The focus is on Elizabeth I and her England, with a lesser emphasis on the earlier Tudors. Social and cultural conditions are studied, as well as political and economic conditions. Readings are taken from a variety of primary and secondary sources; writing exercises are an integral part of the course. (Ms. Minard)

#### 424—1 Victorian England: England in an Age of Expansion

(2641) Four prepared class periods. For Upper Middlers and Seniors. The course is devoted to a study of the major movements and changes that challenged the British people from 1789 to 1901. It is divided into three periods: a study of the background of 1832, the early Victorians, and the late Victorians. The final eight weeks of the course are concerned with the last two periods. Since Victorian literature more directly influences the life and thought of the times than that of any other period of English history, the course examines closely those writers whose works

were influential in adapting English minds and institutions to changing conditions. (Mr. Harrison)

#### 426—12 Modern Russia: History and Literature

(2661) This course, for Seniors only, examines the past 150 years of Russian history and culture in somewhat greater depth than is possible in the one-term course (*History 427*). Though either term may be taken alone, students are urged to treat it as a two-term commitment. The first term is devoted to Imperial Russian history and culture, with an examination both of Tsarist institutions and the growing revolutionary movement. The second term is devoted to Soviet Russia since 1917; the course concludes with a close look at the U.S.S.R. today and its prospects for the future.

Considerable attention is given to the study of literature. From the days of Pushkin in the early 19th century, Russian writers have been viewed by the government with fear and suspicion. This is because, despite police harassment, and censorship, they have continued to write fearlessly about the most pressing issues of their times. As the course examines the significant events and ideas of modern Russia, it also examines the reflection of these events and ideas in the fiction and memoirs of such authors as (in the Fall Term) Pushkin, Gogol, Turgenev, Dostoevsky, Tolstoy, Chekhov, and Gorky, and (in the Winter Term) Mayakovsky, Zamiatin, Babel, Olesha, Solzhenitsyn, and writers of the contemporary underground press known as *samizdat*. (Mrs. Powell and Mr. Richards)

#### 427—3 The Soviet Union

(2673) Four prepared class periods. Open to Upper Middlers and Seniors. After an initial examination of Russia's medieval and early modern background, the course focuses on the past hundred years of Russian history, with a careful study of the revolutionary changes which have transformed that country internally and created one of the great powers of the contemporary world. Although the general orientation is chronological, the course focuses on specific topics of particular significance: the tension between East and West; the rise of the intelligentsia; Lenin and the Bolshevik Party; the Stalinist totalitarian system; Soviet foreign policy; the contemporary Russian mind. Emphasis is placed on political affairs and especially the Revolution of 1917, but considerable attention is also given to economic, social, and cultural matters. Reading is from a wide variety of sources, both primary and secondary, and also works of fiction. Visual materials, principally films, are also used. (Mr. Richards)

See also Russian 13 in the Modern Foreign Language section.



**430—1 The American Presidency**

(2701) Four prepared class periods. For Seniors. This course explores the historical development and institutional structure of the American presidency. Presidential power, the executive's working relationship with the other branches of government, presidential personality and his popular appeal, and the historic growth of the "imperial presidency" are topics covered in this course. The course consists of class discussions, lectures, exams, and several papers. The readings are drawn from: Richard Neustadt, *Presidential Power*; James Barber, *Presidential Character*; Arthur M. Schlesinger, Jr., *The Imperial Presidency*; and J. Anthony Lukas, *Nightmare*. (Ms. Dalton)

**432—1 International Relations: The Present Patterns**

(2721) Four prepared class periods. For Upper Mid-

**432—2 dlers and Seniors. This is a course on the Cold**

(2722) War with emphasis upon the politics of the

**432—3 world's two superpowers, the United States**

(2723) and the Soviet Union, how they created the

United Nations, the Cold War, the many alliances, the nuclear arms race, and the numerous confrontations between themselves and their respective allies; how, too, they prompted the formation of the Third World and repeatedly intervened in its affairs with financial aid, advice, arms, alignments and troops; and finally, some reasons why they continue to perpetuate these massive manifestations of their great power. Textbook and a daily newspaper are employed. (Mr. Bunnell)

**433—3 Urban Studies Institute (Not offered in 1981-82)**

Seniors who have finished their diploma requirements (or all such requirements except for the fourth term of history), and are not involved in year-long courses may elect for their entire spring course program to participate in a ten-week exploration of the American city, including field work four mornings each week. Lawrence, Massachusetts, its history and its present shape, its people and their special problems and opportunities, will be the focus of study, but the context will be drawn through investigation of broad historical, social, and economic issues which affect most of urban America. Lawrence has always been an immigrant city, and one-third of Lawrence's public school students are now of Hispanic background. In addition to their academic course work, Phillips seniors will explore a central aspect of urban life by serving as tutors in an intensive English language training program for a group of these Lawrence children; the tutoring program, which will be designed by Institute students and staff, will use dramatization and one-to-one tutoring to strengthen the children's oral and literary skills. Knowledge of Spanish or familiarity with theatre will be useful, but not essential.

All students will take a course in Caribbean History and a course in Urban History, as well as a core course introducing developmental psychology and ethnic studies in such a way as to inform and support the fieldwork project. Students will meet periodically in evening seminars with outside speakers.

Seven to ten Phillips Academy seniors will be selected by interview and special application. Seven to ten seniors from college preparatory courses in Lawrence and Andover high schools will be selected in the same way. Apply to Susan M. Lloyd for information and application forms. (Ms. Rodriguez, Mr. Quattlebaum, Mrs. Lloyd)

**434—12 American Urban History (Not offered in 1981-82)**

Four prepared class periods or the equivalent. Limited to fifteen Seniors and Upper Middlers. Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing via nine brief weekly papers, oral presentations, analytical and interpretive thinking. Fall Term work focuses not only on definitions of "city" and "American city," but also on the proper role of the historian toward the city, and on the evolution of the city from prehistoric times through the American colonial period. The Winter Term deals with different "types" of American communities and cities—such as Lowell, Washington, Oneida, New York, Salt Lake City, Los Angeles—evolving between the Eighteenth and Twentieth Centuries.

The course entails occasional visits to Boston and Lawrence, and continuous monitoring of ten urban newspapers, such as the *Atlanta Constitution*, the *Chicago Tribune*, and the *Denver Post*. General readings include: Edward Banfield, *The Unheavenly City Revisited*; Lewis Mumford, *The City in History*; urban novels like Theodore Dreiser, *Sister Carrie*; and monographs like Gunther Barth, *City People*. (Mr. Quattlebaum)

**434—3 American Urban History (Not offered in 1981-82)**

Prerequisite: *History 434-1* or *History 434-2*. The student embarks on an individual, historical research project, either on a particular American city or on a selected aspect of several cities. (Mr. Quattlebaum)

**436—1 Families in America**

(2761) Four prepared periods or the equivalent. For Seniors. The course examines family structure, function, and development from the colonial period to the present. Sex role, methods of child nurture, economic base of the family, and varieties of family patterns growing out of different ethnic backgrounds are among the major topics studied. Readings are drawn from primary and secondary sources. Students are asked to write a series of critical

essays as well as the history of their family in America. (Ms. Amster)

**437—2 Introduction to Economics**

(2772) Four prepared class periods. For Seniors who

437—3 have completed *History 35 (T2)* or the

(2773) equivalent. This course is an introduction to methods of economic analysis and their ap-

plication to problems which confront this country and the world. Students will examine the historical origins of economics, the underlying assumptions, and the principal critiques. (Ms. Amster)

**438—23 The American South**

(2782) Four prepared class periods or the equivalent.

(2783) Limited to fifteen Seniors and Upper Middlers.

Heavy emphasis on seminar skills useful for college and beyond: selective reading, effective writing *via* nine brief weekly papers, oral presentations, analytical and interpretive thinking. This course is a survey of the American South from Jamestown in 1607 to Houston, Los Angeles, and the Carter Administration in the 1970's. It explores southern identity, economy, class structure, slavery, race relations, violence, and late-twentieth-century ascendancy, among other themes. The Winter Term concludes with the Civil War. The Spring Term covers the Era of Reconstruction to the present. Readings include: Sheldon Hackney, "Southern Violence"; W.J. Cash, *The Mind of the South*; Richard Wright, *Black Boy*; C. Vann Woodward, *Tom Watson: Agrarian Rebel*; and Kirkpatrick Sale, *Power Shift: The Rise of the Southern Rim*. (Mr. Williams)

**439—2 Men, Women and American Culture**

(2792) Four prepared class periods. This course is designed to help students understand the ex-

periences of men and women in American culture from the Victorian age to the present. Using interdisciplinary materials from social and intellectual history, psychology, anthropology, and literature, this course will explore how American culture has defined its ideals of masculinity and femininity since the mid-nineteenth century. We will study a variety of topics: Victorian sexuality, sex roles on the frontier, the "cult of true womanhood," moral reform in the Progressive Era, manliness and the Strenuous Life, sex roles in the Roaring Twenties, the family and the Great Depression, the return of domesticity in the Fifties, and the pros and cons of the Women's Liberation Movement. The course will include lectures, films, discussion, guest speakers, exams, and several papers. Reading will include Peter G. Filene's, *Him/Her Self: Sex Roles in Modern America*; Elizabeth and Joseph Pleck, *The American Male*, and other books and articles. (Ms. Dalton)

**440—3 History and Mathematics** (Not offered in 1981-82.)

Four prepared periods. Prerequisite: permission of the Instructors. This course provides an introduction to the ways in which elementary mathematics is employed in the study of history. Attention focuses on three main areas: elementary statistics and data analysis; entertaining historical controversies; and the logic of historical inquiry—that is, how to design a history research project. To accomplish these purposes, participants do assigned homework problems in mathematics and read exemplary works in the field, in order to discuss their merits and demerits. Most of the reading is from two books: Hubert M. Blalock, Jr., *Social Statistics*; and Robert P. Swierenga (ed.), *Quantification in American History*.

**443—2 Topics in the History of Phillips Academy and Abbot Academy** (Not offered in 1981-82.)

Four prepared class periods or the equivalent. Involving work in the Phillips Academy and Abbot Academy Archives on some aspect of history of the schools, the course introduces the student to the problems of working with the raw materials of history. Permission of the instructor is required for enrollment. (Mrs. Quattlebaum)

## Interdisciplinary

*All courses are electives. Courses in this section may be taken during more than one trimester unless the individual description indicates to the contrary.*

**(9311) Basic Study Skills**

(9312) Four class periods. Open to Lower and Up-

(9313) pers, and to Juniors in the Spring. Permission of the instructor required. The course is de-

signed to help students build effective reading and study skills through understanding more about the learning process. Class discussion focuses on the problems of motivation, concentration and retention. Exercises are designed to work on improvement in each of these areas and to develop proficiency in planning studying time, in developing accurate yet flexible reading comprehension, in taking notes or marking books, and in preparing for exams. When possible, students' texts from other courses are used for instruction. (Ms. Brown, Mrs. Bellizia)

**(9351) Etymology**

(9352) Four prepared class periods. For all classes.

(9353) Training in the interpretation of English words by systematic analysis of elements derived

from Greek, Latin and other Indo-European languages. Exercises expand vocabulary and develop precision of expres-



tion and understanding. The course may be taken for at most one term.

(9331) **Global Food Issues**

(9333) Four prepared class periods. For Upper Middlers and Seniors. Students in this interdisciplinary course will examine the extent and the causes of world hunger through selective reading, data analysis and interpretation, and discussion. What is hunger? What are the interconnections between food supply and population, climate, trade, food aid policies, development, land use patterns, and agricultural methods? What can be done to improve the world food situation? Examining these questions and others will lead to a discussion of the ethics of food issues and how individuals and groups might work for a change. Each student will write and make an oral presentation of a case study of hunger in a particular country. This course may be taken for at most one trimester. (Mrs. Goetz)

(9371) **Greek Literature in Translation**

Four prepared class periods. Open to all classes. A systematic study of the masterpieces of early European civilization as seen in their proper literary, intellectual, and historical context. In what is essentially a history of ideas, the major genres of epic, tragedy, comedy, satire, history, erotic poetry, and philosophy are stressed as aspects of the wider evolution of early European thought which laid the basis for modern civilization. The major problems which still confront human life are explored through the writings of Homer, Aeschylus, Sophocles, Euripides, Herodotus, Thucydides, Aristophanes, Plato and others. (Dr. Pottle)

(9362) **Mythology**

(9363) The interest of the Twentieth Century in Classical Mythology has stemmed from three main sources: the psychoanalytical use of myth, progress in the field of classical archaeology, and anthropological study of myth. Preliminary exploration of the works of Freud in psychology, Schliemann and Evans in archaeology, and Frazer, Graves, and Levi-Strauss in anthropology leads to the detailed study of the myths of Oedipus, Theseus, and Agamemnon among others. The myths are considered living entities changing in the hands of each artist who deals with them whether it be Homer or Joyce, Aeschylus or O'Neill, an anonymous Greek vase painter or Dali, Euripides or Strauss. Works of literature, art, and music provide the core for the study of the use of myth in human life. This course may be taken for at most one term. (Mr. Krumpke)

(9342) **Perspectives on Creativity**

(9343) Open to Seniors and Upper Middlers. Two double periods plus a weekly conference. An exploration of the creative process from genesis to fruition (beginning with the human reproductive process as the first instance of creativity with which all human beings are involved), the course will examine motivations and theories of creativity and the extent to which a creative act is the result of the self attempting to reproduce the self. There are strong views among psychologists (especially Jung and Hillman) about the nature and origin of human creativity, and there are equally persuasive arguments among artistic creators about the development of esthetics and beauty. In addition, social scientists offer opinions about the effect of educational settings and social and cultural contexts upon creative work. To synthesize these views, the course will feature guest instructors from within and from outside the Phillips Academy community who will demonstrate theory and practice in these various creative fields. Reading will be taken from the work of Rollo May, Jung, Freud, Koestler, Holt, and writers of fiction. Text: Rothenberg and Hausman, *The Creativity Question*. This course may be taken for at most one trimester. (Ms. Kubler-Merrill and Mr. Bellizia)

(9392) **Roman Literature in Translation**

Four prepared class periods. Open to all classes. A systematic study of the Latin masterpieces as seen in their proper literary and historical contexts. The central theme of the course is that of the artist and his or her society in an age of empire. Through the writings of Cicero, Vergil, Ovid, Suetonius, Tacitus, Petronius, Apuleius and others, this course examines the tension which held between the realm of artistic self-expression and the world of political power realities. The larger question of the relationship between the artist-intellectual and his or her society is studied in the context of imperial Rome. (Dr. Pottle)

(9401) **Russian Literature in English**

Four prepared class periods. The themes of romanticism, realism, the "superfluous person," Slavophilism, westernism, nihilism, perfectionism, and humanism are examined in the works of Pushkin, Lermontov, Gogol, Turgenev, Goncharov, Ostrovsky, Dostoyevsky, Tolstoy, Chekhov, and Gorky, both as styles of literary expression and as stimuli of Russia's social and political development. (Mr. Lane)

(9412) **Soviet Literature in English**

Four prepared class periods. A study of the conflict of individual freedom and social purpose in Russia since the Revolution, based on selected translations. Social-



ist realism, satire, divided personality, and dissent are examined against the Soviet political and economic background and in the perspective of Russian literary traditions. (Mr. Lane)

(9601) **Typing**

(9603) This course in personal typing is open to all students; it is designed for beginners to learn the keyboard and basic typing skills. There is no charge, but students must supply their own typewriters. This course does not earn academic credit. (Mrs. DiClemente)

*For other courses which are interdisciplinary in nature, see Art 311.*

## Mathematics

Mathematics at Andover is addressed to several overlapping audiences within the student body: the future citizen of late twentieth century society, immersed in a culture which has been shaped to a large extent by mathematical perceptions of reality; the future user of mathematics, whose vocation may depend upon special knowledge of a mathematical sort; and the future mathematical scholar, who may turn his energies and curiosity to the organization or dissemination of mathematical knowledge.

The mathematics curriculum is built around a core sequence of eight trimester courses: three of elementary algebra, two of geometry and three of precalculus topics. The completion of these eight trimesters will satisfy diploma requirements, but an additional trimester may be required of some students before entering the calculus.

Placement of new students in the appropriate first course is made by the department considering the record in previous schools, the results of a self-administered diagnostic test in elementary algebra which is sent to newly admitted students in the Spring, and the course program chosen by the entering student. In general, algebra courses taken before the eighth grade and geometry courses taken before the ninth grade will not earn placement credit. Examinations to validate first and second year algebra skills are given early in the Fall trimester, at which time students who are incorrectly placed can be shifted to higher or lower level courses.

Students entering with no prior study of algebra start with *Mathematics 10*; those with a partial year of algebra enter *Mathematics 11*. Students entering with a full year of algebra start with *Mathematics 20-12*. If the results of placement testing indicate a need for *Algebra Review*, then students who have not taken geometry start with *Mathematics 19-1* and continue to *Mathematics 20-23*.

Those who have taken one year of algebra and one year of geometry will satisfy diploma requirements by taking the first three precalculus trimesters: either *Mathematics 30*, or *Mathematics 32* and *35 (T2)*.

If, on the basis of our testing, a student's algebra skills are weak, then *Mathematics 25-0*, an intermediate algebra course, may be required before precalculus.

It is best to take the College Entrance Examination Board Achievement Test in Mathematics near the end of or immediately following the precalculus sequence.

For students who wish to go beyond the required level, the department offers many electives, some of which lead up to and beyond the Advanced Placement Calculus Examinations of the College Board. The prerequisites of these elective courses should be noted, particularly by students who are involved in Off-Campus Programs.

### Computer

In addition to its course offerings, the department manages the campus computer time-sharing system. The computer, a Digital Equipment Corporation PDP-11/70, is housed in the Mathematics building and serves sixteen terminals, of which ten are available for student use.

The department also has microcomputers available for student use. At the present time there are two Radio Shack TRS-80 Level II with 16k ROM, two 48k ROM Apple II with disk drives, and an IBM 5110 with printer.

### Hand Calculators

Every student taking Mathematics or Physical Science must have a suitable hand calculator capable of handling square roots, sines, cosines, reciprocals, logarithms and exponents. Any calculator with *sin*, *log* and inverse function keys is adequate for all course use.

### COURSES LEADING TO SATISFACTION OF THE DIPLOMA REQUIREMENT

#### 10-0 Elementary Algebra

- (3100) Five prepared class periods. A year-long course for students who have had little or no algebra.

Stress is placed in an understanding of the elementary structure and language of the real number system, on the manipulative skills of simplifying expressions and solving first and second degree equations, and on the study and graphing of polynomial functions. Significant work is done with word problems, inequalities, irrational numbers, right triangle trigonometry, and an introduction to computer programming in BASIC. Prerequisite: None.

#### 11-0 Elementary Algebra

- (3110) Five prepared class periods. A year-long course for students who have had previous instruction in algebra but whose knowledge and skills are not strong enough to enter the regular second level course. The topics covered are the same as *Mathematics 10-0*, but the problems range over a greater breadth and depth. Prerequisite: A half to a full year of algebra.

#### 19-1 Algebra Review

- (3191) Five prepared class periods. A course for students who enter with a full year of algebra whose knowledge and confidence in algebra indicate they need a brief review of algebra. Prerequisite: A full year of algebra.

#### 20-12 Geometry (T2) (a two-term commitment)

- (3204) Five prepared class periods. A two-term course for students who have had a *strong* ninth grade algebra course, but no geometry. This course

is a thorough and systematic presentation of synthetic Euclidean geometry. Strong emphasis is placed on

the need for precision and clarity in the writing of formal proofs. Prerequisite: A complete course in elementary algebra comparable in coverage to *Mathematics 10-0*.

#### 25-0 Algebra Consolidation

- (3250) Five prepared class periods. A course for new students entering Phillips Academy with one year of algebra and one year of geometry. Required of those students whose elementary algebra or whose general mathematical maturity may prove inadequate to sustain precalculus studies. Comprehensive review of elementary algebra. Coordinate geometry. Introduction to algorithms and use of the computer. Extended problem solving. This course will normally be followed by a precalculus course.

#### 30-0 Precalculus

- (3300) Five prepared class periods. A year-long course for students with one year of algebra and one year of geometry. Completion of this course satisfies the diploma requirements. Topics include use of the computer; the structure of groups and fields, with applications to elementary algebra; polynomial, circular, exponential and logarithmic functions and their applications.

Because of the extra period per week in the last two terms, some students, upon completion of the course, may, with department permission, enter *Mathematics 51-1*, or *Mathematics 55-0*. Those who do not receive permission must first take *Mathematics 30* if they wish to enter the calculus sequence. Prerequisite: Credit for one year of algebra and one year of geometry, or *Mathematics 20-23*.

#### 31-0 Geometry and Circular Functions

- (3310) Five prepared class periods. A year-long course for entering students who have not studied geometry. The course covers Euclidean and coordinate geometry, the circular functions and their geometrical applications. Offered only when demand is sufficient. Prerequisite: Credit for one year of elementary algebra and one year of intermediate algebra.

#### 32-3 Precalculus

- (3323) Five prepared class periods. Topics in intermediate algebra, including sets; properties of real numbers; factoring; fractions; exponents; radicals; solutions of linear, quadratic, and radical equations. Prerequisite: *Mathematics 20*, or its equivalent.

#### 35-12 Precalculus (T2) (a two-term commitment)

- (3354) Five class periods, four prepared and one unprepared. More topics in intermediate algebra, including use of the computer, absolute value; inequality; linear, quadratic, polynomial, exponential, logarithmic, trigonometric, and inverse functions; graphing and applica-

tions of these functions. Completion of this course satisfies the diploma requirement. **Prerequisite:** *Mathematics 32*, or its equivalent.

### 36—1 Precalculus

- (3361) Four prepared class periods. Required of students coming from 35 (T2) who plan to study calculus. Topics that bridge the gap between

algebra and calculus, including sequences and their limits; area functions; summation and mathematical induction; vectors; group structure; complex numbers; field structure. **Prerequisite:** *Mathematics 35* or its equivalent.

### 40—12 Elementary Functions (T2) (a two-term commitment)

(3404) Five prepared class periods. A two-term course for entering Seniors who have not had trigonometry but have studied three years of mathematics in high school. Required of those students whose prior work may be found not to satisfy diploma requirements. Work focuses on a review of the fundamentals of algebra, and the elementary functions. Enough trigonometry is done in the Fall Trimester so that students with high quality work may satisfy the diploma requirements and take *Mathematics 50-23 (T2)*. **Prerequisite:** Credit for three years of high school mathematics. Not open to students from *Mathematics 30*, *35*, or *36*.

## ELECTIVE COURSES

Only courses with sufficient enrollment will be given.

### 41—3 Exploring Data

(3413) Four prepared class periods. An introduction to techniques of uncovering the useful information contained in masses of numerical data. No reliance is placed on the knowledge of or development of heavy mathematical tools. **Prerequisite:** None.

### 42—12 Probability and Statistics (T2) (a two-term commitment)

(3424) Four prepared class periods. Includes sample spaces, counting problems, sampling, conditional probability and applications using the computer. Random variables, expected value, variance and standard deviation. Applications of the binomial and standard normal distributions, hypothesis testing and statistical inference. **Prerequisite:** *Mathematics 30* or *35*.

### 42—3 Statistics

- (3423) Four prepared class periods. Applications of statistical inference to social and physical sci-

ences. Estimation and hypothesis testing. **Prerequisite:** *Mathematics 42-12 (T2)*.

### 43—3 Problem Solving

(3433) Four prepared class periods. A variety of non-routine problems drawn from some of the major ideas of precalculus mathematics, requiring various degrees of insight and creativity, will be considered. A synthesis of mathematical knowledge and methods will be the major goal of the course. For example, an inequality might be developed both algebraically and geometrically and then applied to problems in Solid Geometry, Trigonometry and Logarithms. **Prerequisite:** *Mathematics 30* or *35* (may be concurrent).

### 45—1 Mathematics Revisited

(3451) Four prepared class periods. A course of refreshment for those who have satisfied diploma requirements early in their high school careers but who have since discovered a vocational or other need for resuming study. **Prerequisite:** Prior completion of diploma requirements and departmental permission.

### 46—3 Theory of Numbers

(3463) Four prepared class periods. A study of the elementary theory of numbers, emphasizing the arithmetic of the integers. First consideration given to divisibility and prime numbers, ideas that underlie much of the later work. Other topics considered are congruences, Diophantine equations (and Fermat's Last Theorem), continued fractions, and certain special numbers. **Prerequisite:** *Mathematics 30* or *35*.

### 47—1 Beginning Computer

(3471) Four prepared class periods. An introduction to programming in the BASIC-PLUS code. The solution of mathematical problems with computer assistance. Depending on the instructor, the focus may be on a central theme such as cryptanalysis, statistics, data processing, or linear programming. **Prerequisite:** *Mathematics 30* or *35*.

### 48—3 Numerical Methods on the Computer (Not offered 1981-82.)

Four prepared class periods. An investigation of the solution of numerical problems on the computer. Stress is laid on the approximations necessitated by the number system peculiar to the computer. Problems include finding zeros of functions (including complex zeros), solutions of simultaneous equations, fitting curves to data, large number arithmetic on the computer, and polynomial approximations for functions. **Prerequisite:** Open to Upper Middlers



and Seniors with previous programming experience and to others by permission of the instructor

**49—23 Intermediate Computer**

(3492) Four prepared periods. Content and emphasis shall be determined by each instructor. The winter term course will include topics such as files and systems analysis, design, documentation, testing and implementation of a generalized information system and a project selected by the student. Structured programming and modular design will be stressed both terms. The Spring course will introduce the PASCAL language and include such topics as text editors, compiled languages and data types. **Prerequisite:** *Math 47* or permission of the department

**50—23 Elementary Calculus (T2) (a two-term commitment)**

(3505) Four prepared periods. This course, for seniors only, does not specifically prepare for the Advanced Placement Examination. The approach to calculus is concrete, informal and applied, as opposed to abstract, deductive, and theoretical. Topics include applications of the derivative and integral to problems of optimization, curve sketching, rate of change, area, volume, and work. Techniques will be developed to apply derivatives and integrals to logarithmic, exponential, trigonometric and inverse functions. **Prerequisite:** *Mathematics 36-1*, or an equivalent course in trigonometry and elementary functions.

**51—1 Elementary Calculus**

(3511) Five prepared class periods. The first of a three course sequence that covers the syllabus for the AB Advanced Placement Examination of the College Entrance Examination Board. Topics covered include: review of functions and graphing, theory of the definite integral, introduction to the derivative and its applications. **Prerequisite:** *Mathematics 30* with department permission; *Mathematics 36*, or the equivalent.

(3513) Five prepared class periods. The second of a three course sequence that covers the syllabus for the AB Advanced Placement Examination of the College Entrance Examination Board. Topics covered include: review of functions and graphing, theory of the definite integral, introduction to the derivative and its applications. **Prerequisite:** *Mathematics 30* with department permission; *Mathematics 36*, or the equivalent.

**52—12 Elementary Calculus (T2) (a two-term commitment)**

(3524) Five prepared class periods. Theory of the derivative, chain rule of differentiation, related rates, Rolle's Theorem, Mean Value Theorem, techniques and applications of integration, Fundamental Theorem of the Calculus. **Prerequisite:** *Mathematics 51*.

**54—3 Infinite Series and Differential Equations**

(3543) Five prepared class periods. This course extends the work of *Mathematics 52* to prepare the student for the College Board BC Advanced Placement Examination. **Prerequisite:** *Mathematics 52* or may be taken simultaneously with 52

**55—0 Honors Calculus**

(3550) Five prepared class periods. A year-long course in analytic geometry and calculus which begins only in the Fall. Students contemplating Off-Campus Projects at some time during the year should not enroll in this course. Enrollment is limited to able and committed mathematics students, as the coverage is more theoretical and extensive than that of *Mathematics 51-52*. Satisfactory completion of this course prepares for the College Board BC Advanced Placement Examination. **Prerequisite:** *Mathematics 30* or *36-3*, and departmental permission.

**61—0 Calculus Continued and Other Topics**

(3610) Four prepared class periods. The course completes preparation for the College Board BC Advanced Placement Examination, but also includes additional topics at the discretion of the instructor. **Prerequisite:** *Mathematics 52*.

**65—0 Linear Algebra and Vector Calculus**

(3650) Four prepared class periods. For students of demonstrated ability and interest who intend to continue their studies of mathematics in college. Vector spaces, linear transformations, matrices, determinants, systems of linear equations, the calculus of functions with vector arguments and vector values. **Prerequisite:** *Mathematics 55* or its equivalent.

See also History 440-3 (History and Mathematics) in the History and Social Sciences section.

**SPECIAL COURSES**

**30—1 Mechanical Drawing (Elementary)**

(3701) Two prepared class periods and four unprepared. Not open to Juniors. A term-contained beginning drawing course that includes the use of drawing instruments, lettering, geometric constructions and loci, sketching, orthographic projection, and spatial relations.

Special stress is placed on a thorough mastery of fundamental concepts and skills.

**31—2 Mechanical Drawing (Intermediate)**

(3712) Two prepared class periods and four unprepared. A term-contained technical drawing course in applied Descriptive Geometry and Graphics involving work in sectioning and conventions, isometric and oblique pictorial projections, intersections, primary auxiliary views, and developments. **Prerequisite:** *Mechanical Drawing 30*.

**32—3 Mechanical Drawing (Advanced)**

(3723) Two prepared class periods and four unprepared. A term-contained technical drawing course consisting of substantial work in dimensioning, inking, detail and assembly engineering drawing, print reading, perspective and/or fundamentals of design. **Prerequisite:** *Mechanical Drawing 31.*

**30—1 Navigation (Coastal Piloting)**

(3731) Four prepared class periods. Not open to Juniors. A term-contained course in Piloting: (3732) i.e., marine navigation within sight of land or (30—3) landmarks. Substantial dead reckoning and (3733) special case plotting is done on charts and small area plots. Aids and dangers to navigation are studied. Practical use is made of Tide and Current Tables, Light Lists, compass correction, and electronic aids.

**31—2 Navigation (Celestial)**

(3742) Four prepared class periods. A term-contained course in Celestial Navigation: i.e., navigating (31—3) at sea by means of the stars, sun, moon, and (3743) planets. Nautical astronomy is studied. Significant work is done in coordinate conversion, time, altitude intercept theory, the solution of the Navigational Triangle by HO 214, HO 229, and the Nautical Almanac, special lines of position, the use and correction of a marine sextant, times of observational twilight, and "a day's work" at sea. **Prerequisite:** *Navigation 30.*

school record, on the questionnaire sent to them and their current language teachers in the spring, and, when appropriate, on a personal interview with the language chairman at Andover. Details regarding various options and the diploma requirement as it is applicable to "incoming Uppers and Seniors who begin a new language at Andover" are available from the Registrar's Office.

With the exception of Italian (limited to Seniors), each of our languages, ancient and modern, may appropriately be started by students of any grade, Juniors (9th) through Seniors. Many Andover students continue their language study beyond the third year, and a good number of them simultaneously study two or even three languages.

Small classes, flexible placement, and opportunities for acceleration assure that each student is in the optimum learning situation. The foreign language is the language of the classroom. In conversation, in reading, and in writing, the goal is direct communication in the foreign language rather than through translation. The classroom experience is expanded by the language laboratory; media resources (e.g., periodicals, radio broadcasts, movies); the staging of plays; club activities; language events and programs at Andover or nearby schools. At all levels of instruction attention is focused both on basic language skills and, increasingly, on the literature, history, and various art forms which reveal the people whose languages are being studied.

For information on School Year Abroad and other opportunities to study abroad, students should see their language instructor or the chairman of the Language Division.

## Modern Foreign Languages

Andover's requirement of at least three years of an ancient or modern language rests on the firm belief that direct acquaintance, through language, with the spirit and people of other lands is a psychological and intellectual resource of inestimable value for each individual, for every country, and for our common world.

The diploma requirement is customarily satisfied by completion of a 9th-trimester course reached through the regular or the accelerated sequence. Placement of new students is based on their previous

## Chinese

**13—3 Chinese Language**

(4413) A term-contained introduction to understanding and speaking the Chinese language, which will include some work on reading and writing Chinese characters. Emphasis will be on pronunciation and on establishing a foundation for further study of Chinese. (Can be taken as a trimester course or as part of the China S.T.I. program.)

## French

The French Department offers a six-year course of study. The first two years are devoted to teaching the basic language structure. In the third year, while continuing to progress in the language, a student is given the opportunity to choose the trimester courses which best serve his needs. Fourth and fifth-year courses offer study in depth of both literature and civilization. Students who demonstrate unusual aptitude and interest during the first year of study are invited to enter special sections which move ahead more rapidly without demanding more time. Those who complete the accelerated sequence may meet the diploma requirement after seven trimesters as they move directly into fourth-year courses.

In all courses, students are taught to understand, speak, read and write in an order paralleling as closely as possible the natural order of learning. French is the language of the classroom and at no time does the department teach the art of translation.

### 10—0 Beginning French

(4010) Five prepared class periods. First-year French for students who have had no previous courses in the language. Students make frequent use of the language laboratory. Listening comprehension and the use of basic patterns of French speech are emphasized. Elementary grammatical and idiomatic structures are introduced, as well as simple reading material. Text: *Méthode de Français*, Boorsch-Capretz.

### 11—0 First-Level French

(4030) Five prepared class periods. This first-level French course is designed to help the student who has had previous instruction in the language, but whose knowledge and skills are not secure enough for him to enter a regular second-level section. It is also appropriate for students with experience in other languages who wish to begin the study of French. The course emphasizes the development of aural-oral skills and prepares for French 21 the following year. Text: *Méthode de Français*, Boorsch-Capretz.

### 12—23 Accelerated First-Level French (T2) (a two-term commitment)

(4045) Five prepared class periods. An accelerated course beginning in the winter and offered to students in French 11 who are doing honor work. This course is continued in French 22. Text: *Méthode de Français*, Boorsch-Capretz.

### 20—0 French

(4050) Review of basic skills. Five prepared class periods. For students who have successfully completed French 10 or 11 but who need a review of elementary material. By permission of Department Chairman. Texts: Connolly, *Le Français Langue Seconde*, books 2, 3 and 4; Jarvis, Bonin, Corbin, Birckbichler, *Connaitre et se connaitre*.

### 21—0 Second-Level French

(4060) Five prepared class periods. For students who have completed French 11 and for new students who qualify through teacher recommendation or placement examination. While continuing to develop aural-oral skills, the aim of this course is to teach reading and the ability to understand non-technical French prose. Texts: Connolly, *Le Français Langue Seconde*, books 3, 4 and 5; Campbell et Bauer, *La Dynamite*; Sempé-Goscinnny, *Le Petit Nicolas*.

### 22—12 Accelerated Second-Level French (T2) (a two-term commitment)

(4074) Five prepared class periods. An accelerated Honors course open to students who have completed French 12 and to properly qualified new students. Successful completion of this course permits students to enroll in regular courses at the third level during the Spring Term. Texts and reading materials include: Sempé-Goscinnny, *Le Petit Nicolas*, Sartre, *Les Jeux sont faits*, Sturges, Cregg, Herbst, *Une fois pour toutes*, Kirkland, Knox, *A mon avis*. By permission of Department Chairman.

## Third-Level Courses

At the third level, progress in all language skills continues through their application in the study of a particular area.

These courses are designed to provide program flexibility trimester by trimester. To provide continuity, systematic and coordinated grammatical review is incorporated sequentially into all courses. The text used for this review is Sturges, Cregg, Herbst, *Une fois pour toutes*.

### 30A—0 Language Review and Contemporary French Life

(4080) Five prepared class periods. For students who have successfully completed 21 but who have need of further instruction in basic language structures. By permission of the Department Chairman. Texts: Sturges, Cregg, Herbst, *Une fois pour toutes*; Sartre, *Les jeux sont faits*; Pagnol, *Marius*.



**31-123 Selected Readings**

- (4101) Four prepared class periods. Reading comprehension skills are developed through a study of texts such as the following: Simenon, *Le Chien Jaune*; Saint-Exupéry, *Le Petit Prince*; Pagnol, *Topaze*; Vercors, *Le Silence de la mer*; Goscinnny, *Uderzo, Astérix et Obélix: Le Tour de Gaule*; Camara Laye, *L'Enfant Noir*.

**32-3 Village Français**

- (4113) Four prepared class periods. Using, as points of departure, the impressions and misimpressions which French and Americans have of each other's culture, this course attempts to give the student a greater understanding of the French people and their institutions as reflected in the microcosm of a town. With the student's hometown as a basis of comparison, several French towns are examined in depth, including the provençal towns of Roussillon and Cassis and a town of the student's own choice. The basic text, Wylie, *Village en Vaucluse*, is complemented by readings, lectures, original documents and both national and regional newspapers and magazine articles. (Mr. Sturges)

**33-1 French History**

- (4121) This course concentrates on the main events and personalities from the reign of Louis XIII to the founding of the Third Republic in 1875. There is a combination of lectures by the instructor, class discussions, slides and film presentations. Probable text: *Histoire-Geographie IV* by Pernet and Baleste. (Mr. Anderson)

**34-1 Intensive Conversation**

- (4131) Four prepared class periods. A special emphasis on specific aspects of spoken French. Intended for students who understand French rather well but need to gain confidence and fluency in speaking. Dialogues, speeches, debates, interviews, and role-playing are reinforced by study of topical vocabulary and idiomatic expression. Text: Frautschi and Bouygues, *Pour et contre*.

**35-2 Written Expression**

- (4142) Four prepared class periods. Study and writing of basic sentence structures and their integration into paragraphs and compositions. Students' writing, to which instructors give close, individualized attention in small classes, is based generally on selected, short readings. The course seeks a balance between different forms of writing, both original and imitative (description, narration, dialogue, exposition, communication). Text: Limouzy et Bourgeacq, *Manuel de composition française*.

**36-123 Literature and Film**

- (4151) Four prepared class periods. Usually two works of fiction are studied along with two films each term. The books and films for the course vary from year to year. In 1978-79 the films and books included: Jean Renoir, *Une Partie de Campagne*, *La Grande Illusion*, *La règle du Jeu*; de Maupassant, scénario de *La Grande Illusion*; Cocteau, Clément, *La Belle et la Bête*; François Boyer, *Les Jeux Interdits*; Jean-Luc Godard, *Masculin-Féminin* et *Deux ou trois choses que je sais d'elle*. The films and books for the course are usually supplemented by trips to Boston and books on "library reserve." (Mrs. Schorr)

**39-3 Initiation to the French Theatre**

- (4173) Four prepared class periods. An active participation course in which the student follows one play from the initial reading through its final production, taking part in each of the four major phases: Reading, Analysis, Production, Performance. Throughout the course, the vocabulary of French theatrical production is studied and used.

**40-123 Fourth-Level French**

- (4181) Four prepared class periods. The course consists of three term-contained units and may include the reading of French classics and the works of modern authors, as well as conversation and composition. The choice of texts in each trimester is determined by the class and the instructor.

**42-0 French Literature**

- (4190) Four prepared class periods. The first year of a two-year sequence leading to the Advanced Placement Examination in French Literature, open to students who have completed three trimesters of third-level courses, or *French 22* plus one third-level trimester course; also open to properly qualified new students. It is a transition from the study of language to the study of literature. Emphasis is placed on vocabulary building, written work, and close analysis of major literary works. Texts include: Camus, *L'Etranger*; Voltaire, *Candide*; Ionesco, *Rhinocéros*; Balzac, *Le Colonel Chabert*; and Mauriac, *Thérèse Dèsquèyroux*. Permission of the Department Chairman required.

*This course is also offered in the School Year Abroad program in Rennes.*

**43-12 French Civilization**

- (4201) Four prepared class periods. For students with a particular interest in France's past civilization and cultural achievements. A thematic study is made of the great periods of French civilization from its

origins in Celtic Gaul through the end of the 19th century. Areas studied include historical, social, artistic, and literary developments. Each course is a combination of lectures, class discussions, slides, films, and students' oral reports. It is complemented by the reading of short literary and historical selections.

The first trimester begins with an introduction to French geography and then examines ancient Gaul, the era of Charlemagne, medieval society, the Renaissance, and the Grand Siècle (17th century). The second trimester studies the ideas of the philosophers and revolutionaries which influenced European and American life and political institutions. Also discussed are the important social and economic changes brought on by the Industrial Revolution (Mr. Krivobok, Mr. Herbst).

#### 43—3 Le Monde Francophone: French Civilization (4203) Outside of Europe

Four prepared class periods. As an international colonial power France spread her culture throughout the world. The course studies the resistance to and the assimilation of French culture by the native cultures. The student has the opportunity to study the 17 French civilizations in West Equatorial, and North (Arab) Africa as well as the French civilization of the Antilles (Haiti, Martinique, and Guadeloupe). In addition to geographical, social, and historical study, selections are read from authors such as President Senghor, Cheikh Hamidou Kane, Aimé Césaire, Guillaume Oyo Mbida, Birago Diop. (Offered in 1981-82. Not offered in 1982-83.)

#### 43—3 Québec et les Québécois

Four prepared class periods. Because of its geographical situation Phillips Academy has a unique opportunity to merge the study of French with direct observation of and participation in the North American "French experience" which is just across the nearby Canadian border as well as in the many communities surrounding Andover with large Franco-American populations. Some amount of theory is balanced with observation and analysis of everyday life in Québec province to understand its political, economic, and social institutions, and such areas as religious, educational, and artistic life. Emphasis is on a close study of the media of the province as well as personal involvement through liaison with Québec schools, students, and newspapers, and through contact with French-speaking areas of Massachusetts and New Hampshire. The course may culminate in a trip to Québec. (Mr. Dix) (Not offered in 1981-82. Offered in 1982-83.)

#### 44—1 Advanced Conversation and Phonetics

(4221) Four prepared class periods. Intended for students who understand, read and write

French well and who already speak at a competent level, but who feel the need for further drill in conversational patterns, and idiomatic expression. Diction, intonation and elocution are also stressed through memorization, role-playing, speeches, and debates. Text, Knox, *Rencontres*.

#### 51—123 Advanced French Language

(4261) Five prepared class periods. A course designed to meet the requirements of the Advanced Placement Examination in French Language.

(4263) Open to students who have completed three terms of fourth-level French and to qualified new students. Emphasis is placed on vocabulary, conversation, composition, and reading, not only in literature, but in current newspapers and periodicals. The choice of texts is determined by the class and the instructor.

#### 52—0 Advanced French Literature

(4270) Five prepared class periods. The second year of a two-year sequence, open with departmental permission to students who have completed French 42 and to others who are properly qualified. This course is an introduction to French literature and prepares for the Advanced Placement Examination in French Literature through the close reading of representative texts including: La Fontaine, *Fables*, Molière, *L'Avare*; Racine, *Phèdre*; Beaumarchais, *Le Barbier de Seville*; Musset, *Lorenzaccio*; Flaubert, *Un Coeur Simple*; Baudelaire, *Les Fleurs du Mal*; and poetry of Hugo, Rimbaud, Apollinaire, Césaire and Damas.

#### 60—123 Contemporary French Literature

(4281) Two prepared class periods plus one weekly (90 minute) seminar. The course studies selected novels and dramas representative of the Pre-War and Post-War eras. Emphasis is on particular writers and what they add to our understanding of the human condition in our times. Authors studied may include: Proust, Gide, Céline, Malraux, Mauriac, Aragon, Saint-Exupéry, Giono, Montherlant, Anouilh, Giraudoux, Aymé, Camus, Sartre, Robbe-Grillet, and Daninos.

#### (9001) Senior Projects

(9002) Qualified seniors may undertake independent study projects in French under the direction of a faculty supervisor. Those who wish to do apprentice teaching during either the Winter or the Spring Term will study the techniques and methods of modern language instruction and will practice, under careful supervision, in beginners classes.

## German

The German Department offers a six-year course of study with the purpose of developing the ability to understand spoken German, facility in speaking, reading fluency, and the ability to write German correctly. The more advanced courses give an introduction to German literature since the eighteenth century and a survey of German history, culture and geography. German is used as the classroom language. Extensive use is made of the Language Laboratory.

Students who demonstrate unusual aptitude and interest during the first year of study are invited to enter special accelerated sections. Those who complete the accelerated sequence may meet the diploma requirement after seven trimesters as they move directly into fourth-year courses.

### 10—0 First-Level German

(4300) Five prepared class periods. The beginning course seeks to develop aural comprehension and oral expression, as well as a foundation in the basic grammar. The basic patterns of the language are practiced by repetition and variation. Text: Vail, Sparks, Huber, *Modern German*.

### 12—23 First-Level German (Honors) (T2) (a two-term commitment)

(4305) Five prepared class periods. Especially competent students will be recommended for this accelerated course at the conclusion of one trimester of *German 10*. Successful completion of two terms of 12 enables one to enter 22. Texts are essentially the same as those used in *German 10* and *German 20*.

### 10-20—0 Accelerated First and Second-Level German

(4310) Five prepared class periods. Open to Seniors, and to Uppers with permission. A year-long accelerated introductory course covering in one year the essential material of *German 10* and *German 20*. Basic text: *Deutsch Heute*, by Moeller and Liedloff (Houghton Mifflin).

### 20—0 Second-Level German

(4320) Five prepared class periods. The systematic study of basic patterns and grammar is continued with Vail, Sparks, Huber, *Modern German*. Both close and comprehensive reading of modern German prose is practiced extensively. Elementary writing is introduced at this level. Some of the books read include Kessler, *Kurze*

*Geschichten*; Schnitzler, *Der blinde Geronimo*; Remarque, *Drei Kameraden*.

### 22—0 Accelerated Second-Level German

(4330) Five class periods. A year-long accelerated course open to students who have successfully completed *German 12* and to other qualified students with departmental permission. Successful completion enables students to advance to fourth-level courses. Texts and reading materials are essentially those of *German 20* and *German 30*.

### 30—0 Third-Level German: Selected Readings

(4340) Four prepared class periods. Throughout the year grammar is reviewed in Sparks and Vail, *German in Review*. Some of the books read include Brecht, *Kalendergeschichten*; Dürrenmatt, *Der Richter und Sein Henker*; Aichinger, *Der Gefesselte und andere Kurzgeschichten*; Dürrenmatt, *Der Besuch der alten Dame*; Ödön von Horvath, *Jugend ohne Gott*. Emphasis is placed on reading comprehension, vocabulary building, and oral work.

### 40—123 Advanced German Literature

(4351) Five prepared class periods. Introduction to German Literature. This course prepares for the Advanced Placement Examination. Through detailed stylistic analysis of a number of outstanding works, the students gain an acquaintance with some of the major authors and most significant trends in German literature since 1750. The works read include Brecht, *Der kaukasische Kreidekreis*; Büchner, *Woyzeck*; Lessing, *Nathan der Weise*; Borchert, *Draussen von der Tür*; Dürrenmatt, *Die Physiker*; Hauptmann, *Bahnwärter Thiel*; Hesse, *Siddhartha*; Kafka, *Die Verwandlung*; Mann, *Tonio Kröger*; and selected poems from Goethe to the present.

### 50—123 Fifth-Level German

(4361) Four prepared class periods. Contents vary according to the needs and interests of the students.  
(4362)  
(4363)

### 60—123 Sixth-Level German

(4371) Four prepared class periods. Contents vary according to the needs and interests of the students.  
(4372)  
(4373)

### (9001) Senior Project

(9002) Under the guidance of a member of the German Department, a Senior has the opportunity to do special work in German. It may include supervised teaching of an elementary class, or work of his own choice in a special field.  
(9003)



## Italian

### 10-20—0 First and Second Level, Intensive

(4400) Open to Seniors, and to Uppers by permission.

Five class periods. Five additional hours, to be arranged, will take the place of about  $\frac{2}{3}$  of the usual homework obligation: these small drill sessions, plus use of the language laboratory, will afford intensive review and result in confidence and spontaneity in understanding and speaking Italian. A basic college text is supplemented by selected readings, radio recordings, and the libretti and music of Italian opera. (Dr. Pascucci)

## Russian

The Russian Department offers a five year course of study. An accelerated sequence enables able students to complete four years' work in three, and to receive four years of credit. There is also an accelerated course for Uppers and Seniors.

Before studying Russian, many people consider it strange and difficult; but its alphabet and vocabulary have the same sources as those of English, and it follows the same principles of grammar. Continuous oral, visual, and instructional use quickly makes Russian familiar and enjoyable. Communication in Russian and knowledge of Russian culture are essential for productive interaction with the U.S.S.R. in technology and science, and for achieving controlled, responsible international relations.

It is the policy of the Russian Department to attain exclusive use of Russian in the classroom, instructional and conversational, no later than mid-way through the first year of study.

This well-established program guarantees confident progress in personal skill in speaking, aural comprehension, reading and writing.

### 10—0 Introduction to Contemporary Russian

(4500) Five prepared class periods. Open to Juniors, Lower Middlers, and Upper Middlers. A year-long elementary course in speaking, listening, reading and writing. Texts: Kostomarov, *Russian for Everybody* (Russky Yazyk-Moscow); reference materials.

### 12—23 Contemporary Russian (Honors) (T2) (a two-term commitment)

(4515) Five prepared class periods. Especially compe-

tent students will be recommended for this accelerated course at the conclusion of one trimester of *Russian 10*. Successful completion of two terms of 12 enables one to enter 22. Texts are essentially the same as those used in *Russian 10* and *Russian 20*.

### 13—3 A Short Course in Beginning Russian

(4523) Four prepared class periods. Open to Seniors and Uppers. A term-contained introduction to speaking, reading, and writing Russian, using scientific, literary, and conversational text materials. This course enables students to feel comfortable with the somewhat different features of a Slavic language. It also gives a sound foundation for continuing courses in Russian language, history, and literature, whether at Andover or in college. (Mr. Lane)

For other courses related to Russian history and culture see *History 426*, *History 427*, and, in the *Interdisciplinary section*, *Russian Literature in English* and *Soviet Literature in English*.

### 10-20—0 Intensive Contemporary Russian

(4530) Five prepared class periods. Open to Seniors. Open to Uppers by permission of the instructor. A year-long accelerated introductory course covering two years in one. Texts: von Gronicka, *Essentials of Russian* (Prentice-Hall); Kostomarov, *Russian for Everybody: Graded Russian Readers* (Heath).

### 20—0 Intermediate Contemporary Russian

(4540) Five prepared class periods. Completion of the elementary course with continued emphasis on active use. Texts: Kostomarov, *Russian for Everybody*; reference materials and selected reading materials.

### 22—0 Intermediate Contemporary Russian (Honors)

(4550) Five prepared class periods. A year-long accelerated course open to students who have successfully completed *Russian 12* and to other qualified students with departmental permission. Successful completion enables students to advance to fourth-level courses. Texts and reading materials are essentially those of *Russian 20* and *Russian 30*.

### 30—0 Russian Expression: Conversation and Composition

(4560) Four prepared class periods. Reading, conversation and writing. Texts: Khavronina, *Russian as We Speak It* (Progress-Moscow); *Reading for Meaning* (Harcourt); plus cultural and scientific selections. Reference Grammar: Pulkina (Vysshaya Shkola-Moscow).

**40—123 Advanced Russian Composition and Russian Classical Literature**

- (4571) Four prepared class periods. Further work in conversation and writing, and an introduction to the "Golden Age" (19th Century) of Russian literature with selected readings from Pushkin, Chekhov, Gogol, Tolstoy and other writers. Texts: Muravyova, *Verbs of Motion in Russian* (Progress-Moscow); Reference Grammar: Pulkina (Vysshaya Shkola-Moscow).

literature with selected readings from Pushkin, Chekhov, Gogol, Tolstoy and other writers. Texts: Muravyova, *Verbs of Motion in Russian* (Progress-Moscow); Reference Grammar: Pulkina (Vysshaya Shkola-Moscow).

**50—123 The Soviet People, Their Heritage and Literature**

- (4581) Four prepared class periods. Fall Term: RUSSIAN LITERATURE, readings from prerevolutionary and contemporary authors.

Winter Term: THE SOVIET PRESS, a view of Soviet life and culture as reflected in the media. The text is a subscription to a major Soviet newspaper.

Spring Term: SOVIET PROTEST LITERATURE, a view of protest in the Soviet Union from the works of Solzhenitsyn, Yevtushenko, Okudzhava, Bulgakov, and others. Authors vary according to needs and interests of the class.

**(9001) Senior Project**

(9002) Under the guidance of a member of the Russian Department, a Senior has the opportunity to do special work in Russian. It may include supervised teaching of an elementary class or work of his own choice in a special field.

## Spanish

The Spanish Department offers a six-year course of study. Students who demonstrate unusual ability and interest during the first year are invited to join an accelerated sequence which enables them to complete four years of work in three and thus receive four years of credit. The language of the classroom is Spanish, and extensive use is made of the Language Laboratory. Students learn to understand, speak, read, and write the language, and also are given a comprehensive introduction to the literature and culture of Spain and Hispanic America.

**10—0 Beginning Spanish**

(4600) Five prepared class periods. Making use of the audio-lingual approach the course stresses understanding and speaking. A minimum of English is used in the classroom. The basic texts are: *Español: A Descubrirlo*,

and *Cuaderno de Ejercicios*, by Schmitt, Woodford and Marshall (McGraw-Hill). They are supplemented by language laboratory practice, selected readings, and other audio-visual materials. Exercises in reading and writing are introduced after the student has acquired confidence in oral expression.

**10A—0 Basic Spanish**

(4610) Five prepared class periods. This course begins Winter Term. Designed for students who may profit from a more gradual pace in foreign language study, the course aims to enable the students to better assimilate the structure of the language and to acquire acceptable patterns of speech. Eligibility for this course is determined by an agreement reached by the student and the foreign language teacher in consultation with the chairman of the foreign language department involved. Employing a variety of materials, the syllabus for the course will closely follow that of *Spanish 10*.

**11—0 First-Level Spanish**

(4620) Five prepared class periods. For new students who have been exposed to Spanish but who are not fully qualified for *Spanish 20*. The course stresses the oral use of the language. Outstanding performance in this course qualifies the student for *Spanish 22* or *Spanish 30*. Text: *Español: A Descubrirlo*, by Schmitt, Woodford and Marshall (McGraw-Hill) and selected readings. They are supplemented by language laboratory practice and other audio-visual materials.

**12—23 Accelerated First-Level Spanish (T2) (a two-term commitment)**

(4625) Five prepared class periods. An accelerated course beginning in the Winter and offered to students in *Spanish 11* who are doing honors work and to students in *Spanish 10* who are doing high honors work. Text: *Español: A Descubrirlo* (see *Spanish 10*) and selected readings.

**10-20—0 Accelerated First and Second-Level Spanish**

(4630) Five prepared class periods. Open to Seniors, and to Upper Middlers by permission of the instructor. A year-long accelerated introductory course covering two years in one. The basic texts are: *Spanish One* (Second Edition), by Jones/Ruiz Salvador (Van Nostrand); *Tres Farsas Contemporáneas y Un Secuestro* (see *Spanish 22*); *Cuentos y Microcuentos*, by Guillermo Castillo-Feliú (Holt, Rinehart & Winston) and selected poems and songs.

**20—0 Second-Level Spanish**

(4640) Five prepared class periods. A continuation course that emphasizes speaking, reading, sim-



ple theme writing, and vocabulary building, including the use of synonyms and antonyms. Oral fluency is stressed in accordance with the principles of the audio-lingual method. The basic text is *Adelante* (see *Spanish 22*). Readings beyond the basic text are selected to meet the needs of each class.

**22—0 Accelerated Second-Level Spanish**

(4650) Five prepared class periods. Open to students who have completed *Spanish 12* with distinction and to other qualified students with departmental permission. It covers the equivalent of the material of *Spanish 20* and *Spanish 30*. Successful completion enables a student to enter *Spanish 40* or *42*. The basic texts are: *Adelante* by Eduardo Neale-Silva, Robert L. Nicholas (Scott-Forseman), *Cuentos y Microcuentos* by Guillermo Castillo-Feliú (Holt, Rinehart & Winston), *Tres Farsas Contemporáneas y Un Soneto* by Martínez-Ballesteros, Rubio and Whitehead (Independent School Press) and selected readings. In Spring Term students occasionally read and stage a one-act play in Spanish.

**30A—0 Spanish Language Review**

(4660) Five prepared class periods. For students who have successfully completed *Spanish 20* but have need of further reinforcement in basic language structures. The goals of the course are achieved through the use of an intermediate grammar text, and readings which are selected according to the needs of the students. By permission of the Department Chairman.

**31—123 Aspectos de la cultura y civilización del Mundo Hispánico**

(4671) Four prepared class periods. An intermediate course which continues to develop oral and aural skills, as well as facility in written composition through a social-studies approach to the culture and civilization of the Hispanic world. Students must have demonstrated in previous course work, a strong ability for self-expression and an interest in historical and cultural themes.

**32—123 Introduction to Literature**

(4681) Four prepared class periods. An intermediate course which continues to develop oral and aural skills, as well as facility in written expression. Class discussion and assignments are based on representative works of literature to be found in the Spanish-speaking world.

**34—123 Conversation and Composition**

(4691) Four prepared class periods. An intermediate course which has as its principal goal the

(4693) development of conversational and writing skills on topics of a general nature.

**35—2 Winter Term in Mexico**

(4702) Students enrolled in a Spanish course at the 22 level or above may elect to spend the Winter Trimester in Mexico. Interested students should see their Academic Advisor to be sure that their other courses and their diploma requirements will permit them to be off campus for that trimester. Final approval for participation in the program will be made by the Dean of Studies. Students intending to enroll in this course will do special research during the Fall Trimester under the direction of Mr. Couch and other members of the department.

**40—123 Spanish: Language, Literature, Culture**

(4711) Four prepared class periods. The purpose of the course is to review, refine and expand speaking, reading and writing skills and to further the student's interest in the Hispanic world through readings in history and literature.

Students showing marked ability will be eligible to take the A.P. Examination in the Spanish Language. Texts used in the past have been: *Tesoro Hispánico*, ed. Lado et al. (McGraw-Hill); *El Burlador de Sevilla* by Tirso de Molina (Taurus Ediciones); *Doña Bárbara*, by Rómulo Gallegos (Fondo de Cultura Económica); *Repaso de Gramática*, by Soto (Harcourt, Brace, Jovanovich).

**42—0 Spanish and Spanish-American Literature**

(4720) Four prepared class periods. The course presupposes an extensive knowledge of grammar and vocabulary and a reasonable fluency in conversation. Constant use of the Spanish language in classroom discussions and in written assignments is required. Particularly able students may take the Advanced Placement Examination in Spanish Literature if they so desire. Texts: Representative works of Ana María Matute, Unamuno, F. García Lorca, J.L. Borges, Pablo Neruda, and other literary works which complement the study of these major authors.

**52—0 Advanced Spanish and Spanish-American Literature**

(4730) Four prepared class periods. The course is open to students who have the equivalent of *Spanish 40* or *42*, or with the permission of the instructor. This course prepares the student for the Advanced Placement Examination in Spanish Literature or Language. The course is an in-depth study of two significant authors each term. In the past the following texts have been used: *Cien años de soledad*, by García Márquez (Editorial Sudamericana, Buenos Aires); *Historia universal de la infamia*, by Borges (EMECE, Argentina); *En torno al poema*, ed. García Mon-



toro and S.A. Rigol (Harcourt, Brace, World, Inc.); *Tres novelas ejemplares, y un prólogo*, by Unamuno (Austral); *Antología Esencial*, by Pablo Neruda (Losada); *Cinco Maestros*, by Coleman (Harcourt, Brace and World, Inc.); *Fulgor y Muerte de Joaquín Murieta*, by Pablo Neruda.

- 60—123 Concentrated Literary and Cultural Topics in Spanish**  
 (4741) Spanish  
 (4742) Four prepared class periods. Contents vary according to the needs and interests of the student.  
 (4743)

- (9001) Senior Projects  
 (9002) Qualified Seniors may undertake projects of independent study in Spanish under the direction of a faculty advisor. They may also do ap-

prentice teaching in beginning classes under faculty supervision.

See also **Latin American Studies (History 409)** listed under *History and the Social Sciences*.

## Music

The diploma requirement in Music for entering Juniors and Lower Middlers is one trimester of Music, which is satisfied by *The Nature of Music (Music 20)*. This course is also a prerequisite for courses in the History and Appreciation category, but is not a prerequisite for the Applied category. Entering Upper Middlers must take a trimester course in Music or Art at the Academy: *Music 20* or its equivalent. Entering Seniors need not take a Music course. Exemption from *Music 20* as a prerequisite is granted on the basis of an exam and/or by permission of the Department Chairman. However, there is no exemption from the Music diploma requirement.

### APPLIED

- 12—123 Brass Ensemble**  
 (6121) Meeting three times a week, with outside preparation. Open to all classes. Open to qualified  
 (6122) intermediate or advanced players by permission of the instructor. The group has an opportunity to perform in Chapel and in other concerts. The ensemble is made into different types of groups, such as trios, quartets, quintets, and double brass choirs, to perform Renaissance, Baroque, and contemporary brass literature.  
 (6123)

- 13—123 Woodwind Ensemble**  
 (6131) Meeting three times a week, with outside preparation. Open to all classes. Open to qualified  
 (6132) intermediate or advanced players by permission of the instructor. The ensemble is organized to allow a unique and comprehensive experience in the study and performance of chamber music repertoire, in varied sizes of ensembles. Playing chamber music is an essential part in the development of the woodwind student.  
 (6133)

- 14—123 String Ensemble**  
 (6141) Meeting three times a week, with outside preparation. Open to all classes. Open to qualified  
 (6142) intermediate or advanced players by permission of the instructor. These students find a wealth of fine music written for various combinations of instruments, ranging from the relatively easy to the very difficult. Over the centuries composers have considered the strings a favored group. Chamber music is a particularly rewarding experience and is valuable training for all string students.  
 (6143)

- 15—123 Fidelio Society**  
 (6151) Pass/Fail. Three prepared periods. Open to all  
 (6152) classes. This small group of mixed voices is selected from the *Chorus (Music 17)*. It performs on numerous occasions throughout the year both on *Chorus* programs and on its own. Its repertoire includes music of all types, early and modern, sacred and secular. Membership is by audition and is conditional upon good standing in the *Chorus*.  
 (6153)

- 16—123 Band**  
 (6161) Two double periods. Open to all qualified  
 (6162) students. Tryouts are held any time before the beginning of a term to test the student's ability and to arrange for seating. Volunteers from all  
 (6163) classes who are not enrolled for credit are urged to join, on an extra-curricular basis. There are some school-owned instruments available for student use. All types of music for wind ensemble are rehearsed. It includes marches as well as classical, popular, and show music. Much sight reading is done, and at least one public concert per term is given.

- 17—123 Chorus**  
 (6171) Two double periods. Open to all qualified  
 (6172) students. The *Chorus* is the Academy's major singing group, comprised of mixed voices, and performs a variety of choral works, both  
 (6173) sacred and secular. No previous choral experience is necessary; just a desire to work hard and enjoy a unique choral experience.

### 18—123 Chamber Orchestra

(6181) Two double periods. Open to all classes. Most of the music played is for string orchestra; the best winds in the school are invited to join for larger works. One concert a trimester is regularly scheduled and the orchestra also plays at least once a trimester in the Sunday Chapel service. The membership includes several students from the community who want orchestral experience that is not available in their own schools, and several members of the faculty. While *Chamber Orchestra* may be elected as a credit-bearing course, it is also an activity in which all are invited to participate.

### 19—123 Private Instrumental and Vocal Lessons

(6191) Weekly instruction in keyboard (including jazz piano, harpsichord, organ, and carillon), orchestral and band instruments, in classical guitar, or in voice. For private instruction, covering piano, organ, voice, classical guitar, orchestral and band instruments, there is a separate charge of \$100. per term for half-hour instruction or \$160. per term for full-period (50 min.) lessons and a nominal fee for the use of practice pianos and organs. A fee of \$15 per term is charged for private rental of school-owned instruments. (NOTE: Beginners must take two consecutive terms of private instruction in order to receive academic credit.)

### 20—1 The Nature of Music

(6201) Five prepared class periods. This course is designed to give a general background in the history, theory, and practical aspects of music.  
 20—2  
 (6202) Music from its earliest sources to the present is examined. Also, the role of music and the arts in each of its cultural stages is studied. Students receive some first hand experience with musical instruments. No previous experience in music is required.

### HISTORY AND APPRECIATION

*The Nature of Music* (Music 20) is a prerequisite for all courses in this section.

### 26—123 Seminar in the History of Music

(6261) Two class meetings. Open to Lower and Upper Middlers and to Seniors. This course, taught in seminar fashion, is one where a great deal of reading, listening, and analysis is expected to take place outside the classroom. The composer or composers and era to be studied each term will be decided by the class and the instructor. Sample topics: Beethoven and the Era of Revolution; The Life, Times and Music of J.S. Bach. Hours to be arranged.

### 27—123 Independent Study in the History and Literature of Music

(6271) Four prepared class periods. Open to Upper Middlers and Seniors. A student who has taken at least one trimester of *Music 20* may, with the permission of the instructor, pursue an independent course of study in either a particular type of music or a particular period of music.

### 28—1 Jazz

(6281) Four prepared class periods. Open to Upper Middlers and Seniors. A study of the history of classic jazz, dating back to its roots in Africa, its development in New Orleans, its spreading to New York and Chicago, and its influence on music today. A survey of ragtime, blues,

Dixieland, fox trot, on through the big band era of the thirties, concluding with the jazz rock of today. A study of the influence and contributions of the major personalities such as W.C. Handy, Jelly Roll Morton, Louis Armstrong, Basie, Whitman, Gershwin and the rest of the greats.

### THEORY

### 32—123 Conducting

(6321) Hours to be arranged. Open to Upper Middlers and Seniors. A course in conducting and basic musicianship. This course is designed to give the student an introduction to the conductor's world through developing conducting skills and score analysis.

### 33—1 Theory of Music I

(6331) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and Seniors. This course offers an introduction to harmonic progression, triads, modes, rhythmic coordination with dictation. Some original work is also expected.

### 34—2 Theory of Music II

(6342) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and Seniors. Prerequisite: *Theory of Music I* or permission of the instructor. This course deals with harmonic progressions, modulations, figure bass, and an introduction to counterpoint and harmonic analysis.

### 35—3 Theory of Music III

(6353) Four prepared class periods. Open to Lower Middlers, Upper Middlers, and Seniors. Prerequisite: *Theory of Music II* or permission of the instructor.

tor. This course includes advance figure bass, more complex chords, and a brief introduction to nineteenth and twentieth century techniques.

**36—1 Electronic Music**

(6361) Four prepared class periods. Prerequisite: *The Nature of Music* (Music 20) or permission of the Department Chairman. A course for the benefit of those who seek to expand their domains of creativity by understanding and utilizing the conceptual approaches inherent in electronic music synthesizers and related equipment. Using a practical approach, the course begins with the care and feeding of the tape recorder and proceeds to the functioning and operation of electronic music modules. A lab fee of \$15.00 is charged for the use of the synthesizer.

**40—123 Advanced Techniques in Electronic Music**

(6401) Four prepared class periods. Prerequisite: (6402) *Electronic Music* (Music 36). A course designed for the continuation of the skills and techniques developed in *Music 36*. A lab fee of \$15.00 is charged for the use of the synthesizer.

## Philosophy and Religious Studies

The department seeks to initiate students into three distinctive human quests not directly considered elsewhere in the formal curriculum: the search for meaning, the search for justice and the search for the foundation of knowledge. The process of initiation is intended not only to provide an introduction to outstanding literature in the field but also to assist the student in effecting a personal appropriation of the search and in developing the necessary skills for its pursuit. Courses are offered at a variety of levels. All courses are elective and involve four prepared class periods.

**20—3 The Biblical World View: An Introduction**

(7203) Four prepared class periods. Open to Juniors and Lower Middlers. Why was the world created? Why are we humans placed on this earth? What are we like? What should we try to achieve in life? How should we treat one another, other creatures, and the planet on which we live? For many centuries the Bible provided for many people a response to such questions. In our day, however, the message has become both unclear and increasingly unfamiliar. In this course we shall look at the composition and the historical setting of the Bible (Old Testament), then read selected passages of Biblical narrative and reflection which introduce persons and principles central to the Biblical view of the world, its inhabitants, and its Creator. (Rabbi Gendler)

**21—3 Introduction to Ethics: Discernment and Decision**

(7213) Four prepared class periods. Open to Juniors and Lower Middlers. Rooted in concrete issues and experiences of everyday living this course provides an introduction to the skills of discernment. Drawing case studies from literary and topical sources, bioethics, law and education, the class will critically investigate the often unspoken presuppositions that give rise to moral decision. (Dr. Avery)

**30—1 Introduction to Non-Western Religions**

(7301) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. This course provides a brief introduction to four of the world's major religions: Islam, Hinduism, Buddhism, and Taoism. Huston Smith's classic, *The Religions of Man*, is the text. Additional readings are drawn from basic religious texts of the traditions. (Rabbi Gendler)



31—1 Portraits of Jesus: the New Testament

(7311) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. Political activist, wonderworker, nusleading Israel, only-begotten Son of God, simple rabbi, who was Jesus of Nazareth? This course provides a critical assessment of the different accounts of Jesus found in the New Testament and of the claims made about him. (Dr. Avery)

32—2 Post-Biblical Jewish Thought: Responses to the Holocaust

(7322) Four prepared class periods. Open to Lower and Upper Middlers and Seniors. An exploration of the holocaust through diaries, memoirs, works of fiction, poetry, and later reflections on the phenomenon.

Questions to be dealt with will include: what was it like for the victims? What was it like for the Nazis? How could it have happened? What elements from Jewish, Christian, and secular tradition contributed to its possibility? What have been some of its effects on our own feelings about life and human beings? How have various Jewish, Christian, and secular thinkers responded to the challenge of this event? (Rabbi Gendler)

40—2 Understanding Religion: An Introduction

(7402) Four prepared class periods. Open to Upper

40—3 Middlers and Seniors and to Lower Middlers

(7403) with permission of Instructor. From Old Stone Age burial artifacts to the presence of the

Guru Maharji in the Houston Astrodome, people have tried to make sense out of their existence through religion. What is a religion? What aspects of the human experience does it address? Is it a response to the needs of the individual or of society? Or is it a response to something beyond man? The phenomenon of religion will be examined from the point of view of the person, the community and the transcendent. (Ms. McCaslin)

41—1 Views of Human Nature

(7411) Four prepared class hours. Open to Upper

41—2 Middlers and Seniors, and to Lower Middlers

(7412) with permission of Instructor. A critical examination of existentialism, psychology, biology, anthropology and transcendentalism in light of the answers they provide to the following questions. Does man have a characteristic nature? What are his basic needs, rights, obligations and values? Is man free? Is man responsible for his actions? Given an understanding of man, how should we structure society to satisfy his needs and take advantage of his potentials? Readings: Jean-Paul Sartre, *Existentialism is a Humanism*; Sigmund Freud, *Civilization and Its Discontents*; B.F. Skinner, *Beyond Freedom and Dignity* and *Walden Two*; Richard Leakey, *Origins*; Sam Keen, *Apology for Wonder*. (Mr. Hodgson)

42—1 Bioethics

(7421) Four prepared class periods. Open to Upper

42—3 Middlers and Seniors. The growth of the

(7423) human sciences and their corresponding technologies has increased human control over and thus responsibility for the development of mankind. The course addresses particular issues of life and death, genetic engineering, behavior modification, human research and the allocation of medical resources. At the same time the underlying issue of the relationship between science and ethics is considered. (Dr. Avery)

43—1 Law and Morality

(7431) Four prepared class periods. Open to Upper

43—3 Middlers and Seniors, and to Lower Middlers

(7433) with permission of Instructor. A critical examination of an intricate web of problems which arises out of the relationship between law and morality. Questions of concern include: Does society have the right to restrict the behavior of an individual? On what, if any, grounds are such restrictions justifiable? To what degree should society incorporate "popular" morality into law? Is an individual ever morally justified in breaking the law? If so, under what circumstances and in what fashion? Readings include selections from Plato, Hobbes, R.P. Wolff, Lord Patrick Devlin and Martin Luther King, Jr. Case studies on abortion, pornography, racial and sexual discrimination and civil disobedience. (Mr. Hodgson)

44—2 Nonviolence in Theory and Practice

(7442) Four prepared class periods. Open to Upper

Middlers and Seniors. The militarily most destructive century in human history, our twentieth century, has also been one in which such men as Gandhi and Martin Luther King, Jr., have successfully applied nonviolence to conflict situations. What is the theory of this approach to human conflict? What are some of its psychological assumptions? What is its religious and human significance? By what means does it operate? What are its prospects for the age ahead? We shall use case histories, the testimonies of those directly involved in such struggles, films, critical and theoretical studies in trying to clarify and comprehend some of these elements of nonviolence. Readings include Joan Bondurant's *The Conquest of Violence* as well as writings of Gandhi and King. (Rabbi Gendler)

46—2 Proof and Persuasion

(7462) Four prepared class periods. Open to Upper

46—3 Middlers and Seniors, and to Lower Middlers

(7463) with permission of Instructor. A practical introduction to informal logic and to the philosophical study of language. Some of the questions raised are: What is the difference between a good argument and a

poor one? What are the common fallacies of thought? What are the limitations of logic? What is the meaning of "meaning" and the truth about "truth"? The course stresses the development of individual skills in argument and includes a critical examination of the patterns of thought one encounters every day in magazines, newspapers and on television. (Mr. Hodgson)

#### 50—2 Existentialism

(7502) Four prepared class periods. Open to Upper Middlers and Seniors. The term "existentialism" covers a broad range of attitudes and values that are joined together by an emphasis on human existence. The authors brought together in its name share a characteristic concern for the problems of meaning, identity and choice that confront men and women in everyday life. The lectures, discussions and readings are designed to help us locate and express these problems as they confront each of us in our own lives and to assist in understanding and resolving them by drawing on the experiences and insights of the major existentialist thinkers. Readings: Nikos Kazantzakis, *Zorba the Greek*; Friedrich Nietzsche, *The Genealogy of Morals*; Jean-Paul Sartre, *No Exit and Being and Nothingness*; Martin Heidegger, *What is Philosophy*; Søren Kierkegaard, *The Sickness unto Death*; Martin Buber, *I and Thou*. (Mr. Hodgson)

#### 51—1 In Search of Justice: from Socrates to Marx

(7511) Four prepared class periods. Open to Upper Middlers and Seniors. God, emotion, logic, social necessity and economic laws have all been invoked as the final arbiter of justice. The class will examine the major answers to the problem developed by Plato, Aristotle, Kant, Mill, Marx and others. The course aims to assist critical awareness of the ultimate criteria of one's own evaluations and those of others so that she/he be better equipped to make her/his own contribution to the never-ending search for justice. (Dr. Avery)

#### 52—1 Great Philosophers: Knowledge and Reality

(7521) Four prepared class periods. Open to Upper Middlers and Seniors. The great philosophers offer us a variety of serious and systematic attempts to answer a set of difficult questions that perennially face mankind: What is the good life? What are the sources of human experience? What is the relationship between my mind and my body? Does God exist? What is the relationship between reason and reality? This course critically evaluates the responses of Plato, Aristotle, Descartes, Hobbes, Berkeley, Hume, Kant and Mill in an attempt to show the continuing importance of both the questions and their answers. (Mr. Hodgson)

## Physical Education

All Juniors and new Lowerers are required to elect one trimester of *P.E.* 10 in addition to their regular athletic commitment.

#### 10—1 Physical Education

(9201) Pass/Fail. Limit of 15 students per section. Five class periods per week. A course integrating health and fitness concepts with self-testing and challenge activities; two class periods per week are spent using the running track, weight room, ropes course and other areas of the athletic complex. Two class periods are devoted to drown-proofing survival swim technique and C.P.R. training. One period per week is lecture-discussion, requiring some outside reading or other preparation. If the course is failed, the student will repeat it, in full or in part, during a subsequent term.

## Psychology

The Psychology Department seeks to offer students services and programs that may provide them with the knowledge and understanding to improve the quality of their lives both here at Andover and in the future. Its present curriculum complements the informal programs offered through Graham House and the residential clusters. Currently we are working with other departments to plan courses to help students improve their understanding of the meaning of health in its broadest, most integrative sense.

#### 32—1 Introductory Psychology

(7021) One double period and two prepared class periods; for Uppers and Seniors. A survey course designed to introduce the student to the complexity and diversity of psychological inquiry. Emphasis is placed on the application of basic psychological principles to individual experience in order to expand awareness of both self and others. In addition, the broader implications of psychological findings for an integrated understanding of human development and behavior are considered. Topics to be covered include: psychoanalytic, behavioral and humanistic theories of the person, psychosocial, cognitive and moral development, human motivation and personality, abnormal behavior and theories of treatment. Lectures are designed to catalyze discussion. A combination of objective examinations and individualized writing and assignments are utilized to evaluate the student's learning.



### 33—1 Human Sexuality

- (7031) Two double class periods. An interdisciplinary course for Uppers and Seniors, designed to help students understand the facts of sexuality from the biological, social psychological and spiritual points of view. While there is sometimes a tendency to separate mind from

body, the perspective of the course is that mind, body, soul and psyche are all involved in sexuality, often in complex and mysterious ways. In addition to the biological facts, topics to be covered include misconceptions and mythologies of sexual growth and development, masculine and feminine psychology, varieties of intimate relationships and variations in sexual life styles. There is a strong emphasis on discussion in class and self-reflection. In addition, the format of the course includes readings, films, case analysis, quizzes and a final paper.

### 40—1 Human Relationships

- (7101) One double period and two prepared class periods for Uppers and Seniors. **Prerequisite:** (7102) one previous psychology course, or consent of instructor. The many dimensions of human relationships are explored. Emphasis is placed on assisting the student to articulate his or her

emerging psychological awareness of personal and social relationships. The dynamic interplay between internal and external self/other relationships is explored. Primary source readings and structured experiential exercises are used to develop an understanding of psychological concepts as rooted in individual experience. Topics to be considered include: narcissism, democratic and authoritarian relationships, the role of power, body language and communication styles in defining relationships, and dyadic and family relationships.

### 42—2 Group Theory and Process

- (7122) Two double periods. For Uppers and Seniors.  
42—3 Pass/Fail. Limit of fifteen students per section.  
(7123) **Prerequisite:** at least one previous psychology course. This is a course in Social Psychology.

Its topic for study is human behavior in small groups. Human beings do most of their living, working and playing in small groups ranging in formality from family to classroom groups. The relationships among the members of these groups develop through similar stages and by common processes which determine to an important extent the effectiveness of the group in achieving its goals. These stages and processes are a response to two basic human needs: the need for belonging and community, on the one hand, and the need for separateness and individual identity, on the other. The classroom group provides students

with a laboratory in which to experience and observe group process. Students read articles in the professional literature and write papers on topics that reflect upon their learning.

## Science

Since Andover students arrive with various levels of experience in science there are courses offered in biology, chemistry and physics at several degrees of sophistication. The courses are arranged so that a single course may be taken in any of the three major fields at a level appropriate to the aptitude of the student, or several courses of increasing difficulty may be taken should some degree of specialization be desirable for certain students. There are also available introductory science courses (*Science 10-17*) for lowers and juniors and some other specialized courses in geology, astronomy and energy (*Science 30-35*) for uppers and seniors.

In general, students are encouraged to take a variety of courses in physical and biological science and not to specialize in a single branch of science. For students with special interests, individual project work for credit is open to seniors on a pass/fail basis and is arranged through the office of the Dean of Studies.

Although a single laboratory course in biology, chemistry or physics at the 20 level or above prepares the student for the College Board in that subject and meets the diploma requirement in science, students are encouraged to take more courses in science to broaden their base of scientific awareness and so as not to eliminate career options too early. Courses at the 50 level prepare students for the Advanced Placement examinations offered each spring by the College Entrance Examination Board.



## SCIENCE

Science    **Introductory Physical Science (IPS)** (Not offered 1981-82)

Open to Juniors and Lower. Five class periods. A laboratory course in beginning physical science using an expanded version of a syllabus called "Introductory Physical Science." Students explore the nature of matter in its solid, liquid, and gaseous forms. Analyses of mixtures and compounds, and a study of radioactivity lead to an atomic concept of matter. Many experiments are quantitative and require careful recording of data, drawing of graphs, and calculations of results. (Mrs. Whyte)

Science    **Chemistry for the Biological Sciences**

11-3    Open to Juniors and Lower. Four prepared periods per week. This course is designed for students who have no background in chemistry and are planning to take *Biology 30* to meet the laboratory science requirement. Topics such as acid-base chemistry, bonding, shapes of molecules, the mole concept, and elementary organic chemistry will be covered. There will be laboratory work. (Dr. Minné and Mr. Willand)

Science    **Introduction to the Geosciences**

12-2    Open to Juniors and Lower. Four prepared (8022) class periods. Laboratory work is accomplished during class periods and involves study of satellite and aerial photos, slides, maps and various specimens. Typical areas of study include volcanoes, fossils, earth resources, oceans, gemstones, crystals and earthquakes. (Dr. Wilson)

Science    **Introduction to Energy**

14-1    Open to Juniors and Lower. Four prepared (8041) class periods. This course concentrates on hydroelectric, fossil, nuclear and solar energy, but there is some study of geothermal, wind, batteries and house construction. Certain environmental problems will be included. Some laboratory work is accomplished during various class periods. (Dr. Wilson)

Science    **Oceanography**

15-1    Four prepared class periods. This is an introductory science course designed primarily for Juniors and Lower who have not taken *Biology 25* or *30* or their equivalent. The 70% of our earth's surface comprising the oceans is examined from a number of physical, chemical, and biological perspectives. Accordingly, we investigate aspects of sea water chemistry, mechanisms of wave propagation and current generation, and interactions among the thousands of living organisms

found in or near the sea. Films and slides complement the classroom portion of the course. (Mr. Willand)

Science    **Ecology**

16-3    Four prepared class periods. Open to Juniors (8063) and Lower Middlers. The course is designed to introduce students to the basic concepts of ecology. The material offered explores the meaning of interdependence and interrelationships within environment; population dynamics; trophic levels and energy; adaptation; succession; and the impact of man upon his environment and some of the problems caused by his use and abuse of basic resources. Class material is coordinated with and reinforced by laboratory studies of population growth, computer programs to study environmental problems and pertinent field trips. One of the major objectives of the course is to develop within the student an understanding of and sensitivity to the balance and beauty of nature. (Mrs. Hawkes)

Science    **Introduction to Zoology**

17-2    Four prepared classes per week, one of which (8072) will be used for laboratory work. This is a one-term course designed for Juniors and Lower who have not taken *Biology 25* or *30* or their equivalent. A study will be made of the similarities and differences among the major animal divisions from the most primitive invertebrates to the most complex vertebrates. Areas of concentration will include the basic systems of each phylum (i.e., digestion and reproduction), as well as the ecological role and the evolutionary development of the organism. Lab periods will be used to develop techniques of dissection while studying the anatomy of animals from selected phyla. (Mr. Willand)

Science    **Energy and the Future**

30-2    Five prepared class periods. Open to Uppers (8502) and Seniors who have either completed or are completing the science requirement, but not open to students who have had *Science 14*. Its purpose is to study energy in a modern biological, geological, physical-chemical and social context. While several fundamental aspects of science and energy are inspected, time is devoted to issues that transcend mere technology. The course of study considers fossil fuels, nuclear energy, solar, geothermal, wind, tidal, and other sources of energy, biological and ecological aspects of energy, public health, risks, costs, governmental policies and programs. The intent is that through the unifying theme of Energy, students can grasp a broader understanding of their world, as well as perhaps a further glimpse into the present and future of man. A research paper is required.

**Science Observational Astronomy**

- 31—1 Four prepared class periods. Astronomy is one of the few sciences left that the amateur can enjoy while still making meaningful contributions to the field. This course exposes students to observing the heavens with the unaided eye
- (8511)
- 31—3
- (8513)

and telescopes. Classes are scheduled in the Observatory three nights each week. Students identify constellations, track asteroids and planets, and learn how to observe using a telescope. Limit of 10 students. Students are encouraged to bring cameras, binoculars or other optical equipment they own. Permission of the instructor is required prior to enrollment.

**Science Astronomy—The Universe Beyond the Solar System**

- 32—2
- (8522)

Four prepared class periods. This course is designed for Uppers and Seniors who are interested in a college-level course in modern astronomy. We shall consider some of the most fantastic objects in the known universe, such as quasars, pulsars, and black holes. In addition we shall discuss the theories which describe these objects, theories that analyze the evolution of stars, the formation of the universe, the implications of relativity for space travel, and the search for extraterrestrial intelligence (ETI). The course will be made up of slide presentations, films, discussions and sessions in the Phillips Academy Observatory.

**Science Geology**

- 34—3
- (8543)

Four prepared class periods, with two periods each week used for laboratory work. A general introduction to physical geology, with special attention given to socially significant aspects of this science, e.g. mineral resources, groundwater budgets, petroleum exploration, nuclear waste disposal, geothermal energy. Text: *Earth's Dynamic Systems* Hamblin. Lab Manual: *Physical Geology* Hamblin (Dr. Wilson).

For other science-related courses see Global Food Issues in the Interdisciplinary section.

**BIOLOGY**

The Biology department offers two year-long introductory level courses, each of which satisfies the diploma requirement for a laboratory science. Each course meets four times a week for 3 classroom periods and one double-period laboratory session which includes training in the use of the compound and stereoscopic microscopes and other laboratory equipment. Laboratory work requires careful

observation, mastery of techniques and accurate recording and interpretation of results. Part of the spring term is set aside for work on individual or group laboratory projects. Juniors who wish to enroll in either *Biology 25-0* or *Biology 30-0* MUST obtain permission from the Department Chairman.

A student entering Phillips Academy as a Lower, Upper, or Senior who wishes to receive credit for and exemption on the strength of a course taken in the 9th grade at another school may do so upon passing a validation test to be administered after the student arrives at Andover.

**25—0 Biology**

- (8100) This course is intended primarily for Lower Middlers with little previous exposure to science. A topics approach usually centered around laboratory experiences is employed in order to acquaint students not only with fundamental biological principles but also with the methods and techniques used to elucidate them. Attention is paid to the processes by which scientific evidence is gathered, interpreted, and summarized. (This course is not open to Seniors.)

**30—0 Biology**

- (8110) This is a survey course for those students with previous exposure to some of the basic principles of science. It stresses the unity of life, rather than the diversity, by emphasizing the functions common to all living things. It covers, in plants, animals, and microorganisms the fundamental principles of metabolism (including nutrition, gas exchange, materials transport, excretion, and homeostasis), responsiveness and coordination, reproduction and development, genetics, evolution and ecology.

The following four term-contained courses are designed for those students who would like to take biology beyond the 25 or 30 level. For those students who wish to take the Advanced Placement Examination, we recommend taking three of the four courses. (A year of Chemistry and/or Physics is also strongly recommended.) These courses, however, are not designed exclusively for students who wish to take the biology A.P. Exam. *Biology 25 or 30* or their equivalent is *required* for all 40-level Biology courses.

**41—1 Evolution, Genetics, and Ecology**

- (8131) Three class periods and one double laboratory

41—3 period. The major unifying theme in the study

- (8133) of biology is that all life has evolved from a

common ancestor. This course will discuss the ideas of the pre-evolutionists, Darwin, and the neo-Darwinists. The mechanism of natural selection will then

serve as a foundation for the discussion of the basic concepts of ecology such as the ecosystem, energy flow, succession, and relationships between populations. Problems of societal concern such as environmental ethics and our altering of our own evolution will also be discussed. A project or a research paper will be required.

#### 42—1 Animal Behavior

(8141) Three class periods and one double laboratory

42—3 period. The course is designed to familiarize

(8143) the student with the basic principles of animal social behavior. The topics which receive the

greatest emphasis are: territoriality, altruism, mating strategies, courtship, parental behavior, migration, dominance, and the evolution of behavior patterns. Each student is given a newly hatched chick or duck to demonstrate the phenomenon of imprinting. Later, animals will be trained, by operant conditioning, to perform simple tasks. Throughout the course, an effort is made to relate the behavior of animals to the behavior of humans. A project or a research paper will be required.

#### 43—1 Molecular Biology

(8151) Three class periods and one double laboratory

43—2 period. Following a brief review of chemical

(8152) principles, the course examines the major classes of biomolecules and how they are syn-

thesized and degraded in the cell. Particular emphasis is placed on those reactions which are associated with energy conversion pathways such as respiration and photosynthesis. Enzyme function is considered both in terms of mechanisms of action and with regard to kinetics. The relationship between structure and function at the molecular level is emphasized in studies of the plasma membrane, gene interaction, and control of genetic expression.

#### 44—2 Human Physiology

(8162) Five prepared classes per week. An in-depth

44—3 consideration of the major systems of the

(8163) human body. All lab work will be done during a two-week period, devoted solely to the

dissection of a cat (or rabbit) and to microscopic slide study of the major tissues of the human body. A fully documented research paper will be required. Text: *The Mechanisms of Body Functions*, by Vander, Sherman & Luciano.

### CHEMISTRY

#### 25—0 Elementary Introductory Chemistry

(8210) **Prerequisite:** Completion of *Mathematics 10* or the equivalent. For Lower Middlers and Upper

Middlers. Three prepared periods and one double laboratory period. The course includes a systematic study of matter and the changes it undergoes. Emphasis is placed on the reasoning involved in the development of modern theory and general concepts rather than memorization of descriptive chemistry. Laboratory work is closely related to topics covered in recitation.

#### 30—0 Introductory Chemistry

(8220) **Prerequisite:** Completion of *Mathematics 20* or the equivalent. Three prepared periods and

one double laboratory period. The course is designed for students with more maturity and mathematical background than those taking *Chemistry 25*. As in that course, the modern theoretical framework of chemistry is emphasized, and the laboratory work is closely related to topics covered in recitation. These topics are treated in greater depth and with more emphasis on quantitative rather than qualitative answers.

#### 42—2 Research in Chemistry

(8232) **Prerequisite:** At least *Chemistry 25* or *Chemistry 30* completed with distinction, and

permission of the instructor. One prepared period and three unprepared, double laboratory periods, or the equivalent. Each student selects a research project in consultation with the instructor and then carries out the necessary work. (Dr. Minné)

#### 43—3 Elementary Organic Chemistry

(8243) **Prerequisite:** Completion of either *Chemistry 25* or *30*. Three prepared class periods, one

double laboratory period. Students interested in medical or biological fields or in additional chemistry must generally wait until the college sophomore year before studying organic chemistry, the chemistry of carbon compounds. This course is a prior introduction to this critically important and fascinating subject.

Organic chemistry is largely non-mathematical and descriptive in nature. Students will use a condensed "mini-course" text, learn many of the laboratory techniques unique to organic chemistry, make use of three-dimensional plastic molecular models, and gain a sound background in nomenclature, functional groups, bonding, simple mechanisms, typical reactions, and infra-red spectra. (Dr. Wilson)

#### 44—1 Stereochemistry

(8251) **Prerequisite:** Completion of *Chemistry 25* or the equivalent. Three prepared periods and

two double laboratory periods. For students who wish to learn more chemistry without aiming for advanced placement. This course is an introduction to stereochemistry, the



study of the symmetry and shapes of organic and inorganic molecules. In the classroom an historical approach will show how the chemists of the last century (Pasteur, Kekule, Van't Hoff, and Fischer) were able to deduce the shapes of molecules in a simple understandable way, long before atomic orbitals and electronic theories were dreamed of. The course will also show how modern electronic theory has been adapted to agree with the shapes which the older chemists had already established. The laboratory program is a comprehensive series of related experiments involving synthesis and analysis and finally illustrating the importance of stereochemistry to living organisms. (Dr. Rees)

**52—23 Advanced Placement Chemistry (T2) (a two-term commitment)**  
(8275)

**Prerequisites:** *Chemistry 25* or *Chemistry 30* completed with distinction and a year of physics, which may be taken concurrently. Four prepared periods and one double laboratory period. The course is for students who wish to prepare for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.

**55—0 Honors Introductory Chemistry—Advanced Placement**  
(8280)

**Prerequisite:** One year of physics. Three prepared periods for recitation and two double laboratory periods. This course is open to a limited number of able students, by invitation, who have strong scholastic records in mathematics and physics. No prior course in chemistry is expected. It is essentially the equivalent of a first-year college course, and prepares students for the Advanced Placement Examination in Chemistry of the College Entrance Examination Board.

## PHYSICS

**20—0 Physics Honors for Juniors**

(8300) Four prepared class periods. Co-requisite: Registration in *Math 19* or *Math 20*. This is an honors course for talented Juniors with a strong interest and background in science and mathematics. Students entering this course should have mastered a year of algebra as it is used profusely in solving word problems. There is laboratory work. Successful completion of this course prepares students for *Physics 55*. The text is *Physics* from the Physical Science Study Committee.

**25—0 Physics**

(8310) Five class periods, one unprepared. Open primarily to Lower Middlers. An introductory course in the basic concepts of physics. A less rigorous course than *Physics 30*, it is designed for students with la-

tent mathematical maturity. Students should have completed one year of algebra before enrolling. Successful completion of the course prepares the student for the College Board Achievement Test in Physics.

**30—1 College Physics**

(8321) Five class periods. Co-requisite: Registration in at least *Mathematics 30* or its equivalent. A non-calculus, B-level Advanced Placement physics course for students with ability in mathematics and science, this first term is a study of classical mechanics (including rotational dynamics and physical pendula), with extensive laboratory work an integral part of the course. *Physics 30-1* (or equivalent) is a prerequisite for *Physics 30-23* (T2). Text: *College Physics*, by Franklin Miller.

**30—23 College Physics (T2) (a two-term commitment)**

(8325) Prerequisite: *Physics 30-1*. Five class periods. Wave motion, heat, kinetic molecular theory, thermodynamics and electrostatics in Winter Term. Electrodynamics (including magnetism), geometrical and physical optics, early atomic and nuclear theory in the Spring Term.

**51—23 Advanced Physics (T2) (a two-term commitment)**  
(8365)

**Prerequisite:** Honor grade in *Physics 30* (or equivalent) or permission of the Department Chairperson. The student should have completed *Math 51* or the equivalent and should be taking *Math 52* or the equivalent. This is a rigorous course in mechanics (Winter Term) and electro-statics and dynamics (Spring Term). The course generally prepares students for the C-level Advanced Placement Examination in Physics and entrance to honor level programs at the university level.

**52—12 Advanced Physics (T2) (a two-term commitment)**  
(8374)

**Prerequisite:** Honor grade in *Physics 30* (or equivalent.) The student should also have successfully completed a first-year calculus course. This is a rigorous course in mechanics (Fall Term) and electro-statics and dynamics (Winter Term) using both scalar and vector calculus extensively. This course generally prepares candidates successfully for the C-level Advanced Placement Examination in Physics and entrance to honor level programs in physics at the university level. Text: *Physics* by Resnick and Halliday.

**55—0 Physics Honors**

(8380) Four prepared class periods and one double laboratory period. An advanced course using considerable scalar and vector calculus. Open only by per-

mission of the Department Chairman to a small group of very talented students who should have completed a first-year calculus course. The course may be taken by students who have not previously taken a course in physics, may have taken a chemistry course, and generally plan to take the C-level Advanced Placement Examination in Physics. This is a very rigorous course and only those who demonstrate great talent and interest should attempt it. In the last few years it has tended to be more theoretically oriented than other department offerings. Text: *Physics* by Resnick and Halliday. (Dr. Perrin)

#### 60—3 Relativity and Quantum Mechanics

(8393) Prerequisites: *Physics 30* and *Math 52*. Four prepared class periods. Relativity and Quantum Mechanics are two theories that completely revolutionized man's thinking about the universe. The course is a survey of the basic ideas underlying these theories. Special mathematical techniques needed for a better understanding of the material are developed in the course.

## Theatre and Dance

All courses are electives, open to the various classes as noted. Courses in theatre are designed for students who wish formal exploration of the elements of stage work and a supplement to (or substitute for) extracurricular work in productions. A variety of experiences is available: some courses result in performance; some courses study theory; some do both. Theatre students are encouraged, though not required, to supplement their classwork by participating in any of the numerous productions mounted each year, or they might be invited to join the Andover Touring Company, which for several years has become part of an exchange program with schools in England, touring with *Our Town*, *The Fantasticks*, *Scenes from American Life*, *A Thurber Carnival*, *Godspell*, *The Contrast*, and *J.B.*

### THEATRE COURSES

#### 20—1 Introduction to Theatre

(6501) Four class periods. Open to Juniors and Lower  
20—2 Middlers. Using both classical and modern  
(6502) scripts to provide a range of dramatic experiences, the class studies plays in depth to see

how they might proceed from page to stage. The course examines the components of production, especially acting, set design, and lighting, to learn how the play moves from the script to full realization as a production. Intended for students with limited experience in educational theatre. (Mr. Hillman)

#### 21—1 Introduction to Acting

(6511) Four class periods and one hour of movement.

21—2 Not open to Juniors. This course is designed  
(6512) for students with little or no acting experience.

21—3 By doing exercises in movement and voice production, reading, improvisation, and scenes, a  
(6513) student who is curious about the theatre may

determine whether he or she has ability or interest in acting, while learning something of the process of characterization, the major responsibility of the actor. The emphasis is on the variety of acting experiences rather than on a polished final product. One required trip to a nearby theatre. Text: Hagen, *Respect for Acting*.

#### 22—1 Public Speaking

(6521) Four class periods. Not open to Juniors. The

22—2 course has a dual objective: to learn how to  
(6522) speak easily in front of others, and to learn

22—3 how to speak English well. Students give  
(6523) prepared and extemporaneous speeches on a

variety of topics while studying diction, pronunciation, projection, organization, and other techniques of good speaking.

#### 26—123 Technical Theatre

(6561) Two double periods. Open to all classes.

(6562) Through practical experience in designing,  
(6563) building, and lighting for plays currently being

produced, students learn the elements of stagecraft, including set construction, stage rigging, and the use of lighting instruments and gels. For the Fall Trimester emphasis will be on set design; for the Winter, stagecraft; and for the Spring, lighting. (Mr. Hillman)

#### 28—1 Shakespearean Workshop

(6581) Four class periods. Open to all classes. An intensive study of several plays by Shakespeare, with the major emphasis on the spoken word. Close attention is given to pronunciation, diction, rhythm, dynamics, and interpretation. Students read aloud, act, memorize, and record scenes and soliloquies. Anyone who plans to audition for *Theatre 52-2* might consider this course. (Mr. Owen)

**32—2 Intermediate Acting (Formerly Theatre 23)**

(6622) Four class periods. **Prerequisite:** *Theatre 21*, or

**32—3** departmental permission. Building upon the

(6623) principles of acting introduced in *Theatre 21*,

this intermediate acting course consists of detailed scene work and improvisation, exploring the relationship of the actor to his audience and to his fellow actors and focusing on the creation of dramatic moments, both with and without scripts. The course considers various acting styles in an effort to guide the actor toward a greater understanding of his responsibility on stage; to see to what degree he can remove himself from himself while creating truthful characterizations.

**33—3 Oral Interpretation**

(6633) Four class periods. **Prerequisite:** *Theatre 21* or

22 or departmental permission. Designed to

continue the principles of effective speaking begun in either *Theatre 21* or 22 the course examines the "voices" of poetry, prose, and drama both in established literary texts and in original student writing, giving students an opportunity to "hear" literature as well as to read it, in an effort to learn more of the relationship between the creative act of the writer and the reader's interpretation. Oral interpretation brings the student closer to text, character, and author by developing "a sense of the other," an understanding of literature as a collaboration between writer and reader. While some written analysis would be expected, the emphasis will be upon oral presentation. (Mr. Bellizia)

**51—1 Acting and Directing Workshop**

(6711) Two double periods. **Prerequisite:** *Theatre 21*

or 32 or departmental permission. Uppers and

Seniors only. The course serves two kinds of students: those who wish as actors to study plays and characters in greater depth and those who wish to study the principles and techniques of directing, the most complex of theatrical tasks. While everyone will do some acting, only those people who express a desire to experiment with directing will do so. Class members work with manageable scenes from classical and contemporary periods, reading theories of acting and directing, studying various performance styles, and examining methods of scene interpretation. (Mr. Bellizia)

**52—123 Play Production (Formerly Theatre 27)**

(6721) Four double periods. Uppers and Seniors only.

(6722) By audition. This course is oriented toward the

(6723) performance of a significant work by an important playwright. Recent choices have been

*The Crucible*, *The Sea Gull*, *The Little Foxes*, and *Macbeth*.

Fall Term: To be announced. Winter Term: *As You Like It* (Mr. Bellizia); Spring Term: To be announced.

**53—2 Playwriting (Formerly Theatre 29)**

(6732) Four class periods. Open to Uppers and

Seniors. Each student is expected to write at least one one-act play in addition to certain exercises in monologue, dialogue, and scene setting. The class reads aloud from students' work-in-progress while studying the formal elements in plays by important playwrights and by reading selected literary criticism focused on drama. (Mr. Owen)

**DANCE**

**25—123 Introduction to Dance**

(6801) Four prepared class periods. Open to all

(6802) classes. A formal course in movement and

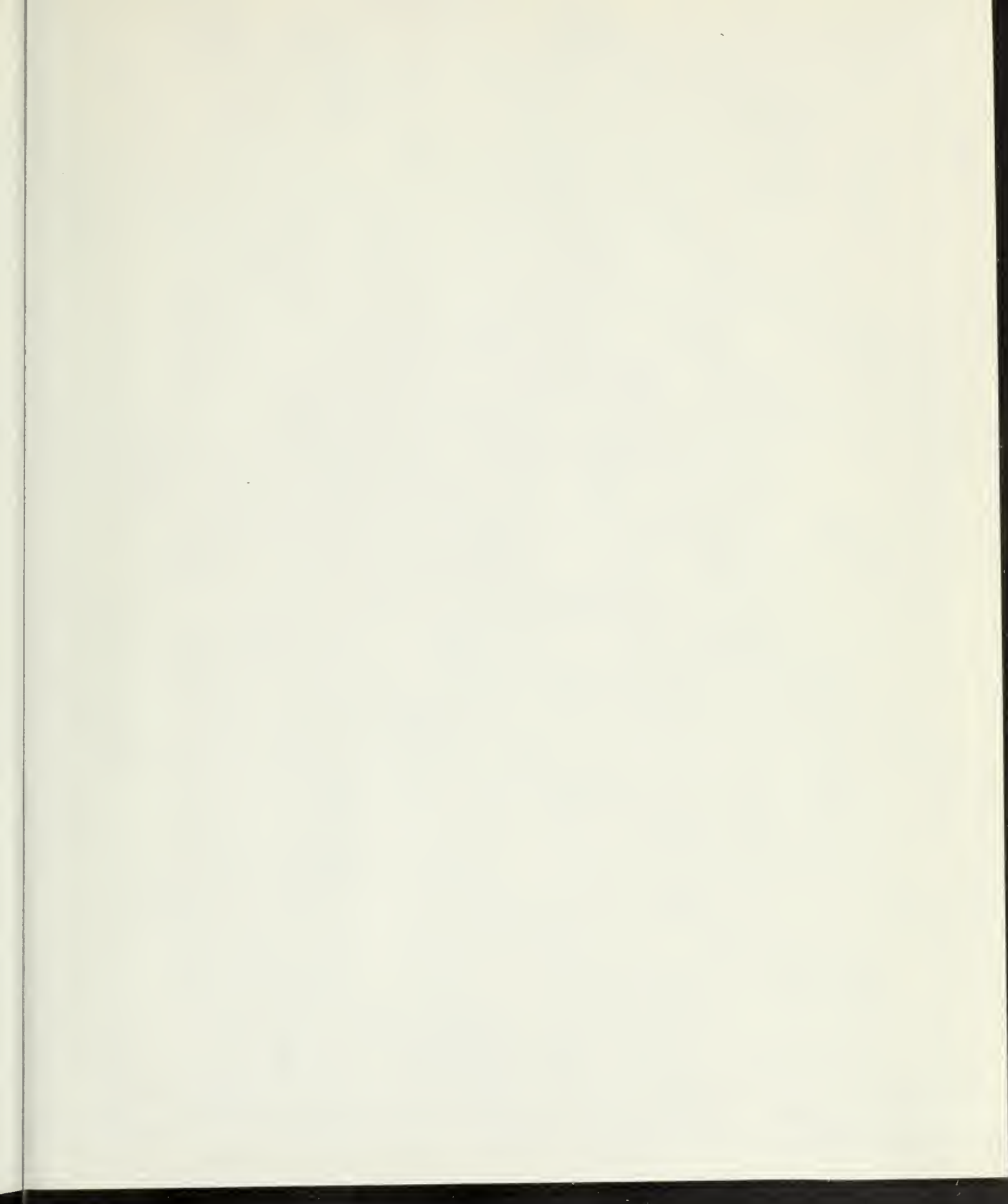
(6803) composition which introduces the serious student to the vocabulary and other elements of

dance through active participation. The emphasis is not ultimately on public performance, but on the process and the discipline of modern dance. (Ms. Brecher)











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